

Diamond Jubilee Issue

GEOGRAPHY

FORMERLY THE GEOGRAPHICAL TEACHER.



THE QUARTERLY JOURNAL OF THE
GEOGRAPHICAL ASSOCIATION

Central Office :
c/o The Park Branch Library,
Duke Street, Sheffield, 2.
(Telephone : 25946.)

LONDON :
PUBLISHED FOR THE GEOGRAPHICAL ASSOCIATION BY THE LONDON GEOGRAPHICAL INSTITUTE
MESSRS. G. PHILIP AND SON, LTD., 32, FLEET STREET, E.C.4. AND PRINTED BY
PERCY BROTHERS, LTD., THE HOTSPUR PRESS, MANCHESTER ; AND AT LONDON.
PUBLISHED FOUR TIMES A YEAR. FREE TO MEMBERS OF THE ASSOCIATION.
PRICE OF DIAMOND JUBILEE ISSUE 10/- NET.

CONTENTS

	Page
DIAMOND JUBILEE CELEBRATION, SHEFFIELD, 26TH SEPTEMBER, 1953 ..	209
DIAMOND JUBILEE ADDRESS. F. Debenham	212
THE BEGINNINGS OF THE GEOGRAPHICAL ASSOCIATION. From the Jubilee Address, 1943. T. C. Warrington	221
SIXTY YEARS OF GEOGRAPHY AND EDUCATION. A RETROSPECT OF THE GEOGRAPHICAL ASSOCIATION. H. J. Fleure	231
OFFICERS OF THE GEOGRAPHICAL ASSOCIATION	265
HERBERTSON MEMORIAL LECTURES	266
A SURVEY OF THE PRESENT POSITION OF GEOGRAPHY IN SCHOOLS. O. J. R. Howarth	267
THE BRANCHES OF THE GEOGRAPHICAL ASSOCIATION, 1953	275
LAND USE SURVEY AS A TRAINING PROJECT. A. J. Hunt	277
THE POST-WAR LAND USE PATTERN OF THE FORMER GRASSLANDS OF EASTERN LEICESTERSHIRE. Hilary C. Chew	286
URBAN FARMING. A STUDY OF THE AGRICULTURE OF THE CITY OF BIRMINGHAM. Ivor Davies	296
THE DELIMITATION OF LAND USE REGIONS IN A TROPICAL ENVIRONMENT. AN EXAMPLE FROM THE WESTERN REGION OF NIGERIA. K. M. Buchanan	303
SOME USEFUL STATISTICAL SOURCES. A REVIEW. K. R. Sealy	308
OBITUARY	316
GEOGRAPHICAL ASSOCIATION	321
REVIEWS OF BOOKS	327
INDEX	349

NOTE.—The authors alone are responsible for the opinions expressed in their articles.

THE GEOGRAPHICAL ASSOCIATION

Full Membership : This is open to all who are interested in geography or in education, and entitles members to the privileges of receiving the journal, *Geography* (formerly *The Geographical Teacher*) post free, four times a year, of using the library of books and periodicals (postal or personal) if resident in the British Isles, and of other benefits. The Life Composition fee is £10. The subscription for annual membership of 12s. 6d. fell due on 1st September, 1953, and covers the period from September, 1953, to August, 1954. Subscriptions paid after June 30th are allocated to the following year. Members joining between March 1st and June 30th may, if they wish, pay a subscription of 6s. 6d.; they will then receive only the last two numbers of *Geography* for the current year.

Branch Membership : Local Branches in the United Kingdom may charge a fee to members participating in their activities; this fee is additional to the above-mentioned subscriptions.

Student Membership : Students in universities and training colleges and senior pupils in secondary schools may be enrolled as members at a specially reduced rate; only *bona-fide* students may benefit by this. Applications should be accompanied by a certificate of studentship. Further details may be obtained from the Assistant Secretary.

School Membership : Special attention is drawn to the arrangements whereby a college or school may subscribe to receive *Geography* and to use the library, paying £1 5s. per year, and having the right to borrow six books at a time, the school paying postage both ways. Responsibility for the loans must be undertaken by the Principal, Head or recognised lecturer or teacher.

Cheques and postal orders in payment of subscriptions should be crossed and made payable to the **Geographical Association**. They should be sent to the Assistant Secretary, Geographical Association, c/o The Park Branch Library, Duke Street, Sheffield, 2. Branch members may pay their full subscriptions through their local branch secretary or treasurer.

Information for contributors of articles to *Geography* will be sent on request.

All correspondence, including manuscripts or other communications concerning *Geography*, but excluding matters properly addressed to branch secretaries, should be sent to The Assistant Secretary, Geographical Association, c/o The Park Branch Library, Duke Street, Sheffield, 2.

All correspondents requiring a reply should enclose a stamped addressed envelope.

DIAMOND JUBILEE CELEBRATION

SHEFFIELD, 26TH SEPTEMBER, 1953

THE Geographical Association was founded in 1893. Its Jubilee thus fell in 1943 when the second world war was at its height and though it received due attention at the Annual Conference for that year, which was held on August 10th-14th, in Cambridge, (and, we may add, in a "Salute to Geography" by Sir John Myres in *The Oxford Magazine* for May 20, 1943), any adequate anniversary celebrations could not then be thought of. Officers and members of the Association alike have therefore looked forward for some time to the opportunity which the Diamond Jubilee would provide to bring together as large and representative a gathering as possible to commemorate our foundation. That hope was amply fulfilled by the celebrations held on Saturday, September 26th, at the Association's headquarters in Sheffield. No more appropriate place of meeting could have been found, and we venture to say, no happier gathering could have taken place anywhere else. Indeed it was particularly appropriate that we should meet in Sheffield in that an occasion was afforded on which we could thank the City and its officers for their great generosity in providing accommodation for the office and library of the Association.

In that library on the Saturday afternoon nearly 200 members assembled, some having travelled there from places as distant as Invergarry and Worthing. Despite limited catering facilities tea was served to this crowded gathering and in a tumult of conversation old friendships were renewed and new introductions effected. Many were making their first acquaintance with the premises that are the home of the Association, and with the best wall maps on the walls and flowers on the tables there could be no doubt that this was a geographical birthday party.

At 4.30 p.m. we crossed the City from Duke Street to Stephenson University Hall where later arrivals were already assembling, to hear the Jubilee address. Our President, Dr. Howarth, who was in the chair for this second crowded meeting, first read cables, telegrams, and messages of greeting and congratulation from a number of overseas and distant members, societies, and friends. It was a matter of very real regret to everyone that owing to grave illness Mr. James Fairgrieve was unable to be with us, but a personal message of good wishes and greetings from him was conveyed by his daughter, Mrs. Greenwood, whom we were very glad to have with us as his representative. Mr. Fairgrieve's death occurred on October 8th, and there cannot be one of us who has not been deeply touched by his solicitude for and active interest in our Association until his very last days.

An address of congratulations from the Royal Geographical Society was then presented by its Honorary Treasurer. The address, inscribed on parchment by members of the Society's staff and bearing the seal of the Society and the signature of its chief officers, is worded as follows:

"The President and Council of the Royal Geographical Society warmly congratulate the Geographical Association on attaining its Diamond Jubilee. The Society has watched with great interest the progress of the Association since its foundation sixty years ago, and has followed its splendid work for Geography and for Geography teachers in all types of educational institutions, and in education generally. The relations between the Society and the Association are of the happiest and it is hoped that these will be maintained and strengthened in the future.

J. M. WORDIE	<i>President</i>
LEONARD BROOKS	<i>Treasurer</i>
EDW. HINDLE	} <i>Honorary Secretaries</i>
E. W. H. BRIAULT	
L. P. KIRWAN	<i>Director and Secretary</i>

Dr. Howarth then introduced the speaker, our immediate past-President, Professor Frank Debenham, who gave the Diamond Jubilee Address. Evidently he had taken to heart some words uttered by Professor Fleure at the Jubilee meeting in Cambridge ten years ago: "In reviewing geographical thought, let us not restrict ourselves to those who are called geographers." Professor Debenham spoke exclusively of such persons: persons who certainly possessed the spirit of geography though they would not normally be regarded as geographers. He drew graphic pictures of vivid personalities encountered in his own life, in boyhood and student days in Australia, as a member of Scott's last Antarctic expedition, or during his recent investigations in Central Africa. It was a delightful address and is printed in full elsewhere in this issue. The meeting then adjourned until 6.30 p.m. when further guests and members arrived for the Diamond Jubilee Dinner, held at Stephenson Hall.

It was a privilege to welcome so many friends at this, the crowning function of a crowded day. Our guests included the Deputy Lord Mayor (Alderman Peter Buchanan), the Chairman of the Education Committee (Alderman J. H. Bingham), the City Librarian (Mr. J. P. Lamb), and members of the City Libraries Committee, the Director of Education (Mr. Stanley Moffett), the Vice-Chancellor of the University and Mrs. Whittaker, representatives of local scientific societies, and other Sheffield friends. Together with this distinguished civic representation, it was a pleasure to see at the High Table a veritable galaxy of senior university geographers and teachers of geography, on either side of Dr. Howarth, who presided. Professor Fleure, Professor Debenham, Professor Rudmose Brown, Professor

Wooldridge, Professor Linton, Professor K. C. Edwards and Professor Beaver, Mr. J. M. Wordie, Mr. J. N. L. Baker, Mr. L. S. Suggate, Mr. L. Brooks and Dr. Briault were some of those present.

We partook of an excellent meal which turned out to be strangely familiar despite the intrigues of the menu card which promised such fare as *crème eustatique*, *petits pois de l'adret et l'ubac*, *dindon rôti post-glacial*, *pêches synclinales d'Everest*, *craquelins transhumants*, etc., etc. ! After the Loyal Toast, proposed by the President, there followed six very good and commendably brief speeches. Professor Wooldridge (as our President-elect, and the representative of the Institute of British Geographers) proposed the toast of "The City of Sheffield," referring to its superb qualities as a centre for geographical study, and the appropriateness of its choice as the home for our Association. To this, Alderman Buchanan (Deputy Lord Mayor) replied with delightful witticisms well in keeping with the occasion and such as only a non-geographer would dare to make.

Mr. W. R. A. Ellis, Honorary Secretary of the Liverpool Branch, and a much valued member of the Executive Committee, proposed the toast of "Our Guests," stressing—as had Professor Wooldridge—the debt that we owe to the City of Sheffield for the accommodation so generously placed at our disposal. Mr. Wordie (President of the Royal Geographical Society and Master of St. John's, Cambridge) replied for both civic and other guests, and warmly reciprocated the tributes made, in extending greetings from the senior society.

It was appropriate that the toast of "The Association" should be given by Mr. J. N. L. Baker of Jesus College, Oxford (and, as he reminded us, President of the Oxford Branch of our Association), for it was at Christ Church, Oxford, that the Association was born in 1893. To his genial speech, that certainly gave encouragement to the Association in its endeavours, Professor H. J. Fleure rose to reply. We had looked forward very much to the words of a friend who, through more than half the lifetime of the Association—as Mr. Baker emphasised—served the Association as its leading and most active officer. Professor Fleure gave us a speech truly befitting the occasion and moment, in a graciously worded personal survey that paid tribute to the Founders, to the leaders of bygone decades, and to those contributing to the work of the Association today.

So ended a very crowded, but most successful series of formal gatherings. As a background to them and for the more energetic of our members, there were in addition two field excursions organised and led by members of the staff of the University Department of Geography. The first, on Saturday, was led most ably by Mr. I. S. Maxwell and Mr. R. S. Waters and comprised an urban survey of the site, growth and development of Sheffield. On Sunday morning, a second very successful excursion was led by Mr. R. A. G. Savigear to study the geographical characteristics of the High Peak region of North Derbyshire. Throughout dry calm anticyclonic weather prevailed giving not only sunny autumnal conditions but also an absence of haze and

mist and a degree of clear visibility that rarely could have been matched for field studies. Such ideal weather indeed contributed in no small measure to the success of the entire meeting.

It will be appreciated that the Diamond Jubilee celebration owes a tremendous amount to those who were responsible for all the necessary arrangements, for the accommodation of members staying at the University Halls of Residence or in private houses, for the organisation of the dinner and the informal tea, for the excursions, and for all the correspondence and detailed work involved in bringing together people from all parts of the country. For all this our principal debt of gratitude is owed to our Honorary Secretary and Assistant Secretary, but we would like also to record our very grateful thanks to the officers and members of the Sheffield branch for their very real contribution to the success of what was indeed a memorable occasion

DIAMOND JUBILEE ADDRESS

PROFESSOR F. DEBENHAM
Immediate Past President

Mr. President, Ladies and Gentlemen,

On such an occasion as the Diamond Jubilee of our Association I feel that the appropriate subject for an address would be a review of its past and an account of the geographers who launched it on its successful voyage. There are people in this room who would be capable of that, and, indeed, some of it has already been said. But it could not be said by me because I was at the other side of the world during its first thirty years and I was not even a geographer. Therefore, with due warning to our Honorary Secretary, I have decided not to talk about great geographers I have met, or just missed seeing, the Mackinders, the Herbertsons, the Roxbys or the Bowmans of the past. You have all read their books and some of you will have known them in person and more intimately than I did.

We are here, I suppose, a gathering mainly of professional geographers with some sort of specialist training for the teaching and practice of our subject. Yet we also have in our Association many members who are not professional geographers but who belong to it because of their interest in the subject, or their aptitude for it, or more commonly for both reasons. And we would all admit that outside our Association there are many people who, without our degrees and diplomas and summer schools, have the seeing eye, the inquiring mind and the balanced judgment which make them geographers in fact if not in name. I think it was Mackinder who once said that geography was largely an attitude of mind, a special kind of approach to the world around us. Training will no doubt intensify that attitude but it will rarely create it; it must be there in the first place.

I propose, therefore, to tell you something about men I have met who had that attitude of mind, who were in a sense natural geographers though few would have recognised themselves under that title. You could doubtless match these anecdotes yourselves from your own experience, for one may meet such people in any walk of life, in very varied guise and even of any colour. If these personal reminiscences of mine stir you to recall similar ones of your own, this address will have achieved one purpose at all events, the realisation that interest in geography is very widespread. We are not a closed circle, a favoured few, but share our interest and our ability with many unsuspected people who have most or all of the qualities required in a geographer, though few may have the ready tongue or the facile pen to enable them to be generally recognised as such.

I will first ask you to recall that at the western entrance to Bass Strait, between Australia and Tasmania, there is a large low island, named after an early governor-explorer. King Island is 40 miles long, and therefore was at once an obstacle and a hazard for all sailing ships making the long great circle run from the Cape, and for over forty of them the first land they met was when they were wrecked on its western, windward side; one wreck per mile. In the nineties of last century there were half a dozen cattle ranches on the island and to it, at irregular intervals, ran a tiny cattle boat, the *Yambacoon*. On her last voyage she was carrying a skipper who was drunk and incapable, a mate who was really a geographer and a mother with four children, her eldest boys being 16 and 15 years old. Within ten minutes of sailing from Launceston, there was a scene on the bridge which was unseemly even by cattle boat standards. The family aforesaid were all on the bridge, that being nearly all the deck there was, and therefore witnessed the attempt by the skipper to knife his steersman, the wrestle with the mate and subsequent locking up of the skipper in his cabin with ample whisky to give him solace. From that moment the voyage assumed, for the schoolboys, that quality of combined terror and delight which is what appeals so much to mountain climbers in particular, but to all of us in some degree.

The mate took charge of the bridge, of the two boys, and of all the rest of the ship's company. To the boys he was the cleverest man they had ever met because, as they told each other, he "explained things." That flat topped rocky hill frowning on us from the west bank was Brady's Lookout, haunt of an infamous bushranger of thirty years earlier, and all the apple orchards below it were there because there was a lava soil. Here were the "Narrows," and as the mate took the wheel himself for their passage, he explained why the water boiled and swirled round us as the *Yambacoon* waltzed between the rocky bluffs. And so for the whole 40 miles of the River Tamar till we met the open sea and such a gale as the schoolboys had only dimly imagined from books. They could not be openly terrified while hanging on to rails and ropes when the mate was calmly explaining why the waves could not sink the ship, how the albatross managed to fly without

ever flapping its wings, and even why Bass Strait had a future in spite of its weather and its rather barren islands.

We struggled into no less than three harbours in succession for shelter and learned the characteristics of each and even why, at Stanley, there was a tessellated pavement like that of the Giant's Causeway in Ireland. We scuttled across to the Hunter Group of islands during a temporary lull, and there the mate took his firm admirers ashore in a two-by-four dinghy to look for a spring; and he found one where he said one should be.

Crossing to the windward, harbour side of King Island, we had another rare old tossing, and at dusk we came through the 40-foot-wide entrance to Currie Harbour, salt encrusted but trim enough. We went to bed in peace, and apparently the nightwatchman also went to sleep, for at four in the morning the eight-year-old boy woke his brothers, saying there was so much smell of smoke that he couldn't sleep. One glimpse at the red glow forward of our cabin set us off rousing the ship, and a mild pandemonium ensued. This was truly meat for the mate and he sprang into action, beaching the ship first near the cattle jetty, where the boys managed to get the rest of the family ashore without much damage, and then came back to give what help they could. My best and last memory of the geographer mate was seeing him slung over the side on a rope, hanging more or less upside down while he hacked a hole through the wooden side to get to the heart of the fire, still explaining, in vivid language this time, why the crew must close the "crimson" manhole to the bunkers otherwise there'd be a "crimson" draught when he had cut the hole and the whole ship would be "abso-crimson-lutely" burnt out.

She was so nearly a total loss that the children had a three months' holiday, instead of only three weeks, till the owners sent another cattle boat to see what had happened to the *Yambacoon*.

Truly our mate was like unto George Bass himself, described by the then Governor of New South Wales as "seeming to be a young man of well-informed mind and an active disposition," and still further resembling him in that he too was "six feet high, of dark complexion and of a very penetrating countenance." The parallel can unfortunately be followed still further, since I heard years later that our mate had been killed in a South American port in circumstances as obscure as the death of Bass.

Ten years later I returned to King Island to do my first piece of geological field work, and we may take my companion on that venture as an instance of the latent geography in a man. Max had been a sixth form pupil of mine in my schoolmastering years, and was now an engineering student with no visible interest whatever in anything but engines, but he was ready to camp out with me for six weeks on King Island. He was an atrocious cook, so we lived mostly on porridge and kangaroo, those dishes being within his capacity. The only real interest he showed was in the snakes of the island, of which we killed 280 between us, a bag of six or eight a day being common; but it was

not the snakes themselves but where we killed them that was his strange research. I found him entering up each kill-site on the plane table map I was making and was so pleased to find he was interested that I dared not query the value of his industry. Nor do I know it now, because he died some 15 years ago in Kenya where he had become the Colonel Marcuswell Maxwell who was almost the first and greatest of the big game photographers of the twenties of this century, an animal geographer if ever there was one.

But we have spent too long on this remote island, and we now turn to a famous man, who was a great geographer though rated as a geologist. This was Professor (later Sir) T. W. Edgworth David, F.R.S., who organised the boring of the Funafuti Atoll to discover the origin of coral reefs. Later he was the leader of the sledge party in Shackleton's Antarctic Expedition which reached the South Magnetic Pole. His method of joining that expedition as a full member was characteristic and can now be told without prejudice. He had leave from his University authorities to accompany the expedition as far as the pack ice, from which point he was to return in the *Koonya*, the ship which had towed the *Nimrod* to that latitude. But when the time came for him to transfer to the *Koonya*, the Professor could not be found. That didn't matter much as live sheep were being taken across for the *Nimrod*. Finally the Professor was discovered writing an official letter to his University regretting that a gale prevented him from returning in time for term and asking for leave of absence for 15 months. As he couldn't get an answer to his request for 15 months, it was taken for granted in a double sense.

David's lectures were geological by name but geographical by nature, and a general course he gave each year on physiography was always crowded out, for it dealt with every possible branch of geography in the most vivid way. He always crowded his large demonstration table with specimens or other objects which his class looked at closely for ten minutes before the lecture and sometimes tampered with. In one lecture on ethnology he had an array of busts of different races all facing the class. When he came in to begin the lecture he instantly spotted that the bust of a Polynesian was in the act of kissing a Bushman woman. With a twinkle in his eye he turned them into parallel and said, in a stage whisper, "Gentlemen! Gentlemen! Decorum in the class room, please!"

He was always referred to as The Prof or as Tweddy, and his excessive politeness caused a standing reward of £1 to be offered to any student who managed to get the Professor to enter a door in front of him. With many others I tried for it, but had to give up after bowing about four times to the Professor at the door saying, "After you, Sir," only to be answered by "Not at all, Debenham, after you." Yet no one ever got the better of him in the frequent rags or conundrums that geology in particular offers opportunity for, and usually his triumph was complete and shattering. It is so easy to draw a graptolite in pencil on a piece of slate and ask the lecturer to identify

it that it rarely hoodwinks the victim. One student went much better and brought up to the Professor a rounded nodule, vivid red when cracked across with a hammer. The Professor beamed, called the class round, made the student stand up on a stump and announced, "Ladies and gentlemen, here is a geologist who is bound to be famous, have a good look at him, he has made a world-shaking discovery, nothing less than a piece of Permo-Carboniferous sealing-wax."

As I have said, he dealt, in true geographical fashion, with almost every subject under the sun. The only one he omitted, he hinted at in his famous "Good-bye Lecture" to the final year when I was in the class. His peroration went something like this: "We have studied many wonders of nature together, we have even considered the way of a ship, the way of a snake and the way of an eagle. To you, gentlemen, I commend the finest and greatest wonder of all, the way of a man with a maid," after which he rushed out amid a storm of applause.

And that reminds me of another natural geographer, in this case labelled an anthropologist, though trained as a botanist—Dr. A. C. Haddon of Cambridge. His final lecture of the year he called his "Hurrah Lecture" and that too was attended by many who were not reading Anthropology. In it Dr. Haddon gave a brilliant exposé of all his lectures rolled into one, and he won his audience by his intensity and his manner rather than by his elocution, which was jerky and hesitant, or by his appearance, which was that of a white-haired Papuan, fierce of eyebrow but turned kindly in his old age, or by his mode of speech, which was that of a man with a large pebble in his mouth.

I had not intended to spend so much time in the academic atmosphere, with which we are all familiar, so we will now turn to the sea again to find a geographer-in-spite-of-himself. The Scott Expedition was not the first case of a close association of scientists with seamen but it was a very successful one, and I would say naturally so, because it is incumbent on both to keep their eyes open and to try to understand what they see. Perhaps the best instance was Lieutenant H. R. Bowers of the Royal Indian Marine, better known as Birdie Bowers, one of the last three of the Pole Party who died in that tent on their way back from the South Pole. Birdie was first and foremost a practical man, and at first glance one would have said he was much too busy devising ways of doing things to have time to think about the strange features around us. Yet he missed very little of the scientists' arguments and could put forward a theory of his own on occasion which always merited attention. He was, however, incorrigible in the way in which he stated scientific theories and queries in a spirit of fun. I soon got used to his collecting specimens for me with "Here is another unauthorised foolspar for you" (anorthoclase felspar). But he brought down the house after a lecture by the biologist which brought in the brittle stars, eight-legged starfish known to the scientist as pycnogonids, when he gravely put the question, "Would our lecturer tell us whether the pycnogs are related to the arachnids?"

He was one of the keenest observers on the expedition, and he never hesitated to record and, if possible, explain what he observed. Perhaps he was too much of an Elizabethan to dig deep into geography, he was more of the explorer than the scientist, as he hinted when he wrote to his mother that he was "one of the few in this prosaic age who can have the privilege of realising what must have been a commoner thing when the world was younger." He was young, and had he lived he would have come to realise, as did Scott himself, that the dangers and difficulties and delights of exploring were incidental only, the real business was understanding the whys and wherefores of what he found.

Turning to the Army for examples of "ungeographers" I have met, one is tempted to say that soldiering is not as conducive to geographical thinking as one would expect. There are many brilliant examples to the contrary of course, as a glance at the names on the Council of the Royal Geographical Society will show, but the ordinary regular officer does not shine, either as a user of maps or an observer of country, except for his own very specialised purposes, nor does he interest himself very closely in how and why the inhabitants live where they do. By comparison the voluntary soldiers of the 1914-18 war showed up rather well; they did want to know more about the country they were fighting in than the professional. There was a good instance of this on the Somme in 1915. The battalion was in bivouac amongst ruined villages, just within shell-shot of the front, and we were having difficulty with water supply. At mess the adjutant and the quartermaster, both "regulars," were talking about this with the French map of the locality in front of them, and their chief comment was regret that the many *brasseries* on the map were no longer in a condition to produce beer, which would be even better than water. Later that night my scout corporal came along to see me with the same map, which he had "acquired" by some means known only to scouts. "These here brasseries, Sir," he said, "there's a line of them not very far from here and they must have had good water handy. If you'd let me take a scout and rummage along that line, we ought to find a decent well somewhere"—which he did. Later on, in Salonica, he further exhibited that requirement of both scouts and geographers, the capacity not only to look for a thing, but to deduce where looking would be most profitable, and his speciality became the finding of water supplies.

Mention of that subject reminds me of one of the greatest of recent instinctive geographers, the late General Smuts. I had some brief contact with him through having his daughter as a student, and on water supply he was as shrewd and geographical as on most other practical problems. I was dining opposite to him at my college a year before he died, and my neighbour happened to ask me my opinion on water divining. I suggested that we should ask Smuts his opinion, as South Africa has many professional dowisers. His answer was characteristic, and like another great man, Abraham Lincoln, was in anecdotal form. In his very effective, incisive, clipped speech, it went something

like this: "Water divining? I will tell you. When I was Prime Minister, I went to my Director of Geology and asked him how he found water and what success he had. He had 50% success. Then I asked the same of a celebrated water diviner and he too said, 50% success. Well, Debenham, I am only a farmer, but I go out on my farm looking for a place to sink a well, and I scratch my head and I say 'I think we try there.' And I have 50% success."

South Africa calls to mind two other great men, of whom I have an anecdote with a geographical bent, taken from Jim, the old coachman of a cousin of mine, who used to go to Loch Rannoch for shooting each year. In 1900 Jim was returning late at night from taking my cousin to the train at Struan, over a high and lonely track, even now not quite suitable for motor cars, when he saw two bright lights, accompanied by much noise, coming over the moor to meet him. This was the first motor car ever seen in the Rannoch district. Jim pulled up, and from the car issued a high, rather harsh voice. "Get off the road, my man, and let us pass," to which Jim answered, stoutheartedly for a boy of 18, "I be no man of yours, Sir. I be horse-boy to Mr. Frank Debenham o' Innerhaddon, and this be my road as much as yours." No reply from the car, but two men got out and came up to him, one a burly, purposeful figure and the other small and dapper. Each took the head of one of the horses, soothed their terror and led them past their car on to the road again, gave Jim a sovereign and went on their way. The burly man was Mr. Cecil Rhodes, and his companion was Dr. Jameson. Only such a pair would try their first car over a vague track at night, and would reward a healthy obstinacy on Jim's part with a sovereign.

If Rhodes was a commanding geographer with ideals, and Jameson a practical and perhaps more ruthless geographer, ready to carry out the ideals, then another great traveller and scout was so shy that he was apt to be silent. Early in 1914 I was lucky enough to find myself at dinner between Grenfell of Labrador and Selous of southern Africa, and I had to decide which I should talk to. I chose Selous, and most brazenly began with a reference to Allan Quatermain. Perhaps my youthful enthusiasm carried me through, at all events he really did talk, and even continued later in a corner of the big drawing room, where I asked him about the military parades of the Matabele. He was showing me how the warriors stamped and hit their shields as they shouted out "Bayete," when he suddenly glanced round and saw that the whole roomful were watching and listening to him. He stopped at once, looked accusingly at me, stumped off to say good-bye to his host, and vanished.

But one need not go to the great and famous ones to find a geographical sense, and here is one whose name I do not even know, but whom I call "the Virginian." I had been down the Grand Canyon of the Colorado in 1930 with a party of Princeton students. The heat at the bottom was too much for the tender Easterners, and just when we four guest professors were hurrying towards the shower baths at

Phantom Ranch, we had to stop and carry fainting young men. Most of the students walked out the 6,000-foot climb—over 10 miles—in the early hours of the morning. I was promised a mule to spare me the climb, but as it was needed for one of the stricken young men, I found myself walking out alone. At Indian Gardens, a pleasant spot about 2,000 feet below the rim of the Canyon, I found parties of mules and their attendant cowboys, all looking as though they were a little ashamed of their profession. One was youngish and dark, neatly dressed in a black shirt, and he was sitting alone near me reading a paper when there was a stampede of the mules at the hitching rail, and much shouting and rushing round by their cowboys. Finally, true to the first chapter in Owen Wister's "Virginian," my neighbour got up and took charge and the mules were soon retrieved and hitched again. When he came back, I could not resist talking to him, and began by pointing on my map to a spring to which I had climbed fruitlessly an hour or so earlier. In a rich drawl he told me it was seasonal, and then went on to explain why there were any springs at all in that dry country. So my Virginian was a physiographer as well as a cowboy. As if to point the contrast between the natural and the academic, there was another incident the same day from a student, who is a great friend of mine, but who, in spite of his ancestral millions, is no geographer. The class of 24 second-year men on this travelling summer school had to collect six minerals and six fossils on our five-week tour of the States. This young man brought me up a crystal of felspar for identification, and he carefully wrote down all I said about it, even to the name of its crystal system and its chemical constitution. But a moment later he came back to me and said, "But you haven't told me whether it's a fossil or a mineral."

We will end our little list of geographers who were more or less born that way with two instances from the people we but recently regarded as primitive, one a true Bantu and one a Nilotic.

Since they are both statesmen, in embryo if not in fact, we might begin with a wishful syllogism which would run :

All statesmen should be geographers.

So-and-so is no geographer.

Therefore he cannot be a statesman.

If that syllogism had been in operation, we should be having less trouble in the world now, particularly over boundaries between nations. We must not confuse statesmen with politicians, though the first usually has to be the second as well ; in fact it is usually the politicians who confound and upset the statesman.

That has been so in the case of my first example, a man well known to you all from newspaper columns in the last few years, Tshekedi of the Bamangwato tribe in the Bechuanaland Protectorate. Like his father, the great Khama, Tshekedi knew his country and his people thoroughly, and in particular the traditional tendency of his tribe to intrigue. When I first met him seven years ago in his capital at Serowe, he was Chief Regent for his nephew Seretse.

Though we began our discussion on the water resources of his tribal territory, we soon roamed over every subject that could affect the tribe which he so jealously guarded, including coal, cattle ranching, and in particular, education. In my own view, it was the latter good cause which was responsible for his downfall, rather than his nephew Seretse's unfortunate choice of a wife. He was so determined to have a modern secondary school for his people, that he taxed his people beyond their loyalty and lost their support. The remarkable feature of his conversation was that he never divorced the place from the people or their work; he saw his territory as a whole with sure judgment. Like Smuts in a far wider scope, he was too clever for his people to follow him, but I maintain that he is a great natural geographer and statesman.

From there we move north to the great marshes of the Nile, the Sudd region of the Upper Nile, and to a man you will hardly have heard of yet. You will know of the Nuer tribe, those tall Nilotic people who wear literally nothing but a few beads round the neck and who live mainly on milk and meat. Fate is overtaking them in that much too vast country, since power politics threaten to bring them into a unified Sudan, with or without Egyptian control, and will take away from them their British administrators; and with them goes a guarantee of non-interference. How can a comparatively primitive tribe of nomads fit into a paper constitution which will give them, with one hand, a vote which they do not understand, and with the other hand, administrators of a totally different race, a race which at present they distrust? For go-betweens they have perhaps a dozen educated Nuers, and the most remarkable of them is our example. Buth Diu was once a personal boy to an enlightened District Commissioner, who gave him every chance to educate himself so that he rose till he became a member of the Legislative Council and acknowledged representative of his people.

Like most of his tribe, Buth Diu is well over six feet, soft of voice, and with an open countenance which invites trust. The tribal mark of six lines of scars across the forehead gives him an appearance of wisdom and experience which is not belied by his conversation, which is measured and grave and, as far as I could see, the result of a singularly balanced judgment, which rests on first hand knowledge of the territory of his tribe, their occupations and their character. Whether the sincerity of Buth Diu will avail against the smart politicians of Khartoum remains to be seen, but I feel sure we shall hear more of him, and if so, you may come to agree with me that here again, in a most unlikely place, we see a geographer and a statesman, born to it and not trained, as we are.

By this time you will be thinking that I have given you, as geographers, some strange colleagues, ranging from the mate of a cattle boat to naked Nuers, and I must end by hoping I have not unduly pressed the point that, if we represent the hierarchy of geography, we must admit that we have a large number of followers who, whether they know it or not, are geographers all.

THE BEGINNINGS OF THE GEOGRAPHICAL ASSOCIATION

From an address to the Geographical Association at its Jubilee
Conference.

Cambridge, 10th–15th August, 1943.

T. C. WARRINGTON, M.A.
President, 1942–1945.

FIFTY years ago, on the 20th May, 1893, the Geographical Association was brought into being and it has fallen to my lot to look back on that event, to consider the circumstances that led to it and to estimate its significance. This is the manifest task of the occupant of the presidential chair today. That I should have been asked to be your President was and is an astonishment to me. It is true that I have tried to serve the Association, but what I have done hardly deserves such honour, but if at this difficult juncture I can in this way be useful, I am only too happy and honoured to do what in me lies.

We may begin our story by endeavouring to form a picture of the state of geographical teaching in the third quarter of the 19th century. We have heard again and again lamentations over that geography and bitter complaints and criticisms of it. But we must distinguish between what was known and what was taught. Let us first look at what was known.

Of mathematical geography, that is, the mathematics of the sphere as applied to geography, there was considerable knowledge. The cartographer, the navigator, the traveller had available what they needed. There were manuals and treatises and such aids as the Royal Geographical Society's *Hints to Travellers*.

During the 18th century and the first half of the 19th, great advances had been made in physical geography and the best work of that time is recognizably of the same order as that of today. What was known can be gathered from Mary Somerville's *Physical Geography*. She was the first to use that term. Her book, first published in 1848, was brought up to date by Bates of the Amazon, Assistant Secretary to the Royal Geographical Society, and published as the 6th edition

in 1870. There were other good works such as those of Herschel and Ansted.¹

These treatises, especially that of Mary Somerville, covered ground similar to that covered by Lake or De Martonne, but they contained also the physical geography of the continents, i.e., descriptions of the physical features, relief, climate and so on. (Humboldt is sometimes spoken of as the founder or father of physical geography, but there was independent English work. Mary Somerville only became acquainted with Humboldt's work after she had written her book and had to be persuaded to go on with its publication).

The remaining geography was known as political geography and the treatises on the subject, especially the larger ones, gave some attention to physical features also. There was a great store of knowledge, in the main, digests of books of travel. There were systematic, orderly works, such as those of Pinkerton and Bell and the encyclopaedias, such as the *Penny Cyclopaedia* of the 1830's and the various editions of the *Encyclopaedia Britannica* which contained admirable and readable articles. The matter was arranged for each country, sometimes for each continent under heads such as boundaries, divisions and chief towns, climate, government, history, trade, religion, people. In 1880 there were available the earlier volumes of Stanford's *Compendium* and the *Géographie Universelle* of Reclus. These, especially the latter, while they were akin to the works already named, were written in more interesting, even eloquent fashion and selected more interesting facts to record. Reclus was a great storehouse in which one can still read with pleasure and profit; but to pass from his *Géographie Universelle* to the *Géographie Universelle* edited by P. Vidal de la Blache and L. Gallois which we all know so well, is to pass into a new world. With all its merits Reclus is but a storehouse.

Nor should the objurgations of some who suffered in their youth from their school geography lead us to think that no one cared for geography. Far otherwise. The 18th century had known a vast hunger for the accounts of the travellers of that time, James Cook and others. Gibbon's great library contained over 300 works of geography and travel. This eagerness to know about other people, their surroundings and their ways was by no means dead. Some of the old collections of travels were still in use. In my own home there was one such and

¹ It is interesting to list the chief books available in 1880:—

Sir John Herschel, *Astronomy*, 1833, Ch. III, Geography.
 Sir John Herschel, Article on "Physical Geography" in 8th edition of *Encyclopedia Britannica* (1853), published in book form in 1861.
 D. T. Ansted, *Physical Geography*, 5th edition, 1871.
 E. Reclus, *Universal Geography*, 15 vols., 1878-1894.
 Keith Johnston, *Geography, Physical, Historical and Political*, 1881.
 T. H. Huxley, *Physiography*, 1880.
 A. Mackay, *Manual of Modern Geography*, 1870-71.
 A. C. Ramsay, *The Physical Geology and Geography of Great Britain*, 1st edition 1863, 5th edition 1878; this dealt fully with the physical geography of Great Britain.

on a winter's Sunday afternoon I would lift this down (it was as much as a small boy could do) and pore over the travels and adventures of Cook and Phillips and Byron of the *Bounty* and others. Nor was it books of travel only that people read. There is on my shelves a stout volume, a copy of the 14th edition of William Guthrie's *Geographical, Historical and Commercial Grammar*. The name written on the fly leaf is not that of a student, but of a small tradesman.

Books on physical geography, such as Mary Somerville's, had a large sale. Moreover the publishers found it worth while to issue popular books on this subject. One of the books of my boyhood of which I have a vivid and grateful remembrance was John Small's *A Hundred Wonders of the World*—the wonders being striking phenomena such as volcanoes, mammoth caves, the Yosemite valley and so on. The existence of the Royal Geographical Society itself is a clear witness to the strong hold geography had on the people of that day.

When we turn to geography in the world of education a different story has to be told. It has been said that the subject was non-existent in the Universities, but this statement requires modification. The influence of Newton appears to have persisted in that there were questions on mathematical geography in the Mathematical honours examinations of both the older universities till the 1850's and I suspect that the persistence to this day of astronomy in those same honours courses is traceable to the same source. At Oxford moreover, there was an optional paper in geography in pass degree, linked on to history and one lecture a week for the few men who took it.

In Glasgow, Mr. Stevens tells me, the professor of mathematics was lecturing twice a week on geography and astronomy in the late 1830's and probably in some of the other Scottish universities there were similar lectures. We may note also that from 1835-1837 there was a professor of geography at University College, London and that from 1863-1876 William Hughes was professor of geography in King's College, London where he was followed by H. G. Seeley. The latter held office until 1909, at some date adding geology, so becoming professor of geology and geography, with, I suspect, the emphasis on geology.

In neither of the older universities was there a professor of geography nor anything but the most meagre place for it in the courses leading to a degree.

In the public schools and grammar schools, where the education was almost wholly classical, geography, if taken at all, was chiefly confined to the junior classes, or in the upper classes was limited to the knowledge required for the understanding of the history of Greece and Rome and the elucidation of references to places in the literature read. In the middle class schools and in girls' schools geography was taught as one of the staple subjects and was taken by many candidates in the Local Examinations. I myself took it in the Junior Cambridge

Examination in 1884. The papers set are a good indication of the scope of the teaching.

Geography was a subject stressed in the training colleges. One of the best selling geographies for school and training college use was that of Dr. Cornwell, the principal of Borough Road Training College. His work, first published in 1847,² was highly praised by Matthew Arnold. William Hughes, already referred to as professor of geography for many years at King's College, was before his appointment to this post the successful and popular lecturer in geography at Battersea Training College, very good for his time.

In the elementary schools, in the earliest days, there was no room for anything but the three R's. Later, geography found a place as an optional subject. By 1884 it was compulsory.

The status of the subject was low, especially in the places of higher education. More serious was the charge made, and made vigorously, that geography was badly taught. It was dull and uninteresting, a mere enumeration of facts, not too intelligently selected and often learned by rote independently of the map. It is now scornfully referred to as "capcs and bays geography." I sometimes think that the case against this old teaching is overstated. At any rate, I have not myself these resentful memories. It may be that I was fortunate in my teachers.

Capcs and bays, moreover, are not always uninteresting. To the sailor they mean a great deal as one may realise from the old maps in the collections of voyages and travels. These maps show capcs and bays and little else. There is too the possibility envisaged in W. J. Turner's *Romance* of which I beg leave to quote two verses out of many :—

"When I was but thirteen or so
I went into a golden land
Chimborazo, Cotopaxi
Took me by the hand.

My father died, my mother too
They passed like fleeting dreams.
I stood where Popocatepetl
In the sunlight gleams."

Here may only be the charm that mere names can exercise. It may also be that mountains are among the *Hundred Wonders of the World*.

However this may be, there was and had long been a good deal of dissatisfaction with the teaching of geography. As far back as 1831, a critic in the *Quarterly Journal of Education* said that "too often children were made to burden their memory with facts, or rather with formulae of words, denoting facts, which they cannot understand."

There were no satisfactory textbooks. Meiklejohn in a lecture to schoolmasters in 1869, makes a lively attack on the textbooks of the day. They contained, he said "long and impossible lists of unrelated

² James Cornwell, *A School Geography*, London, Simpkin, Marshall and Co., 1847, 317 pp.

details . . . After reading one of the best of them geography appears as a heap of gossip, a gallimaufry of odds and ends, a jumble of figures and dates, a basket of fragments and chiffons . . . It is the sweepings of all the sciences . . .” and so on.

There were some books much better than others, such as those of William Hughes,³ compiled with much care and labour, but even these were at best but reference books. Scott Keltie in his report says that “Hughes had a sound notion of the intimate relation between physical and political geography, though it cannot be said that he carried out his idea very thoroughly in actual practice.” There was one excellent and attractive book—*A Short Geography of the British Isles*, written by J. R. Green and his wife, first published in 1879. By 1893 it had reached its 6th edition, but it covered a limited area and was not really widely used. The textbooks were not only dull, they were inaccurate. Geikie asked Mill to write an elementary geography and sent him twenty-five textbooks as examples how not to do it.

The first effective move to improve matters was made in the Council of the Royal Geographical Society. Francis Galton, who had been Secretary of the Society from 1856–63, with some difficulty prevailed on the Council to offer prize medals to be competed for by boys from selected public schools. The scheme was announced in 1868, put into operation the following year and given a thorough trial. Selected schools were circularised, distinguished examiners were appointed, the prize winners received their medals at a full meeting of the Society. It was hoped that the scheme would stimulate interest in the public schools and improve the class of teaching, but the class teaching was not affected at all. As one prize winner whom I knew well in another field told me, a special coach was brought in for a chosen few boys who were taught out of school hours. In the end the scheme proved a failure and was dropped in 1884.

The questions set may be found in the *Proceedings* of the Royal Geographical Society and give a clue to what the reformers thought should be the content of the geography that should be taught. They required a detailed knowledge of the position of places on the map or globe and the distances between them. Some knowledge of physical geography was required and a good deal of knowledge of descriptive (or political) geography. Also much memory work was asked for but very little knowledge of causal relations. The scheme was ambitious and demanded more than could be expected of the average boy. A study of the questions leads to the conclusion that even the reformers had not arrived at any satisfactory conception of the content of school geography, still less of how it should be taught.

The Council of the Society acknowledged the failure of the scheme, but nothing daunted, tried again. Meantime others had joined Galton, more especially James Bryce and Douglas Freshfield. The latter became a member of Council in 1878 and Secretary in 1881. Behind the scenes was the Assistant Secretary, Bates of the Amazon, discreet,

³ William Hughes, *A Manual of Geography*, of London, Longmans Green and Co., 1856, 696 pp.

not speaking except when spoken to, but most influential. This little group, with Freshfield now the moving spirit, led (or drove) the Council to move in two directions.

First they instituted an extensive enquiry into the teaching of geography here in England, on the Continent and in America. Scott Keltie was appointed as inspector in 1884; his report was published in 1886.⁴ On the instruction of the Council, Keltie made a large collection of books, maps and apparatus. This was exhibited for several months in various parts of the country. Lectures were given by Scott Keltie and others. As a result, great interest was generated in the schools. As Mills puts it "A new era in the teaching of geography began and after a few years the Society ceased to press the matter further."

The other move was, in that same year 1884, to renew their efforts to induce the Universities of Oxford and Cambridge to provide a lecturer in geography, but now they were successful though only after a battle within the Society itself. The Society consented to a scheme according to which the Society paid half the cost of the University lecturer. Freshfield and his friends were fortunate, exceptionally fortunate, in finding Mackinder, who, quite uninfluenced by continental thought, had worked out his own geography and had been brilliantly successful as a University Extension lecturer. At the request of Freshfield and Galton he read a paper before the Society in January, 1887, on "The Method and Scope of Geography"; he did not please everybody. He has recalled with glee how he heard some of the old admirals seated in front of his audience mutter—"Damned cheek."

There was a discussion on a subsequent day. The great guns were brought to bear and the battle won. Not less important was it that they had found the man whom they could propose as a University lecturer. Later in that same year 1887, Mackinder was appointed Reader in Geography in the University of Oxford. That did not mean that geography had any better place in the degree courses. The lecturer had to build up his own audience. He began with a don and a few old ladies who brought their knitting. The knitting disappeared when a charge was made.

A lecturer was appointed at Cambridge in the following year.

This brings us to the beginnings of the Geographical Association. B. B. Dickinson developed his interest in geography quite independently. That interest began when he was a boy at home in the Riviera, continued while he was at school in Newcastle-under-Lyme, not in the classroom but outside it and under the inspiration of the headmaster who had helped to found the Science side at Rugby. It was further developed at Cambridge by some geology lectures which he attended apart from his main studies. He left Cambridge in 1884 with a degree in Natural Science to take up school teaching, first at Sutton Valence and then at Rugby. In both, part of his work was to take an army

⁴ In *Supplementary Papers*, vol. I, 1882-1885, Royal Geographical Society.

class in geography. He thought and read for himself, especially Reclus, the better to fit himself for his work. He eagerly sought the best methods of teaching and so came to value highly the use of the lantern. He wanted more lantern pictures than he could produce himself and sought in 1892 to establish an exchange with other teachers; he also wrote to the Royal Geographical Society by whom he was referred to Mackinder. As a result, a letter dated Oxford, April 4th, 1893, was sent to a number of public schoolmasters inviting them to a meeting on Saturday, May 20th, 1893, in the New Common Room, Christ Church.⁵ That letter was signed by Douglas Freshfield, T. Field, H. J. Mackinder, B. B. Dickinson and C. E. B. Hewitt. Douglas Freshfield was the Secretary of the R.G.S. ; Mackinder was a Student of Christ Church and Reader of Geography in the University of Oxford ; Field was the headmaster of King's School, Canterbury, interested in the use of the lantern for the teaching of history ; Hewitt was an assistant master at Marlborough. At that meeting, which was held in the Steward's office at Christ Church, eleven people were present, Mackinder and ten public schoolmasters. Twelve other masters sent letters expressing sympathy with the objects of the meeting. Those who attended first discussed the use of the lantern in ordinary class teaching and then passed on to the larger question of the formation of an association to promote geography teaching generally. A definite motion to found such an association was proposed by Mackinder from the chair and boldly adopted. A yearly subscription of five shillings was fixed, a committee appointed and Dickinson, rather to his dismay, was appointed secretary.

In accordance with the wishes of this meeting, letters were sent out inviting membership of the newly formed association. On Tuesday, August 3rd, 1893, a meeting was held in University College School to elect a managing committee and officers, and to receive a report. That meeting was attended by *six* members, all public schoolmasters. They knew, however, that they had thirty-five members and that they had happened on a bad day. So with what looked like recklessness they proceeded to elect their committee—Hugh Robert Mill, J. Robinson of Dulwich, Ll. Dove of Haileybury and C. E. B. Hewitt of Marlborough, with B. B. Dickinson of Rugby as Secretary. Mill's presence reflected the interest of the Royal Geographical Society, of which he was the librarian. In the first printed circular, issued in the following year, the aim of the Association was stated to be—"to improve the status and teaching of geography in schools" and further, that the Committee considers that its most important work will be the encouragement of any methods of teaching which tend to the comprehension of geographical principles rather than isolated facts."

The first general Meeting was held in December, 1894. The membership was reported to be 50. Three members were added to the committee—J. S. Masterman, G. C. Harrison and E. R. Wethey.

⁵ A facsimile of the letter is printed on page 239 of this volume.

A fourth was to be added when required, who, according to a parenthesis in the minutes, was to be "a man of leisure." At that meeting Mackinder gave an address on "Geography as a Training of the Mind" and Dickinson demonstrated "a Method of Teaching by the Use of Lantern Slides," thus striking a note often sounded subsequently. In a report of the meeting in an educational journal Dickinson was soundly trounced for inexperienced management. First, the meeting was too long. Second there was no break for tea.

Such were the beginnings.

Of those who were present at that first meeting of May 20th, 1893, in Oxford, Mackinder is the only survivor. He did not join the Committee till 1904 when he became Vice-President, but during those early years he took an active share in the annual meetings. He succeeded Chisholm as Chairman of Committee in 1909 and when the new constitution of the Association was adopted in January, 1913, he became Chairman of Council and has remained in that office to the present day, though he has not been able to attend regularly. He was President in 1916.

We cannot go further without saying something of what we owe to Sir Halford Mackinder. Let me borrow some words of Dr. Mill spoken in the discussion after an address given by Mackinder to the Royal Geographical Society in 1935—"I should like to dwell on the enormous influence Sir Halford Mackinder has exercised on geography. He carried out the ambitious schemes of Mr. Freshfield in founding the School of Geography in Oxford, he started the University of Reading and placed it on a geographical basis; he took up the School of Economics and turned it not only into a geographically-minded institution but a breeding ground for schemes of geographical research and exposition." I would like to add this, which touches us more nearly. The scope and method of geography as we know it is an enlargement and development of the ideas of Mackinder's paper of that title read before the Royal Geographical Society in 1887, to which enlargement and development Mackinder has himself greatly contributed. I am told that some of the younger students of geography wonder at the high regard we old folk have for *Britain and the British Seas*. Could we take them and let them see through our eyes the dawn of that new day they would cease to wonder. In that same discussion, Mill said that "fifty years ago, we (Mackinder and I) were both looking with trepidation at the quaking bog which was called geography and wondering how we could build roads across it." Well they have been built and both Mackinder and Mill were engaged in the building.

Dr. Mill who was a member of the committee formed in 1894 has also survived to see the Association's Jubilee anniversary. He looks back with great pleasure to those early days and believes that his work for us was some of the happiest and most fruitful in which he has engaged and looks with an astonished wonder at the contrast between then and now. We, on our part, have reason to be grateful to him for his staunch help in our growing time, when he put his wide knowledge and

experience unreservedly at our disposal. In addition to his assiduous attendance at the Association's Committee from 1894 until 1901, when he gave up the librarianship of the Royal Geographical Society to become the Director of British Rainfall, he was trying to find ways and means of raising geography from low esteem in which it was then held. He found time to write textbooks in order to provide teachers with better tools than were then available. There was also his contribution to the working out of *The Scope and Method of Geography*.

Here perhaps we may mention those few who also were members before 1900 and still survive in this Jubilee year. Mr. A. A. Lea of Haileybury joined in 1894, Professor W. Lyde in 1898, Sir Richard Gregory in 1899 and Mr. C. C. Carter in 1900. Of those who joined during the next five years, some twelve are still members. Roxby, Unstead, Holland, MacFarlane and myself joined in 1904, Fairgrieve in 1906.⁶

Here also we may honour our first President. Douglas Freshfield, who became leader of the movement in the Royal Geographical Society for the improvement of geographical education, had been a member of its Council since 1878 and Secretary from 1881. By the end of 1893, he had retired from the Council and from the secretaryship in protest against the action of the Society in denying ladies admission as Fellows. From the beginning his interest in the Geographical Association was keen. In 1898 he became its first President and remained in office till 1911. His interest in the improvement of the teaching of geography was primarily enlisted for public schools and universities, but he was president of this Association when, in 1900, its doors were thrown open to all teachers of geography. Our debt to him for the improvement of the teaching of geography, for his help and guidance and encouragement in the formative years of the Association cannot easily be measured.

Any success our Association has had is bound up with its secretaries in whom we have been extraordinarily fortunate. The first of these was B. B. Dickinson whose action led to the founding of the Association. He was Secretary for the first seven years and gave unstintingly of his time and energy, not merely to the routine work of a secretary, but to the working out of the provision of lantern slides and maps. The Association honoured itself by appointing him President in 1931.

Dickinson, as he gladly acknowledged, could not have done the work without the help of J. S. Masterman, who was appointed assistant and joint secretary in 1894. In that year Masterman retired from his mastership at University College School and gave freely of the leisure thus gained to the service of the Association. When Herbertson became secretary, Masterman became Treasurer but continued to give secretarial help till he gave up the treasurership in 1907.

Herbertson followed Dickinson in 1900. For fifteen years he guided the fortunes of this Association. During the whole of that time

⁶ His name did not appear in a list of members which was issued in January, 1906; he must have joined soon after this list was drawn up.

he devoted himself to the promotion of its aim, to the improvement of the status and teaching of geography, by personal contacts, by magazine articles, by lectures, by the writing of textbooks to embody his ideas. This he held to be the urgent task for the time. His great learning, his powers of geographical synthesis and research, he used only too unsparingly. He did much, but he had it in him to do more. The loss caused by his premature death is not easy to measure. We tried to indicate our debt to him by the institution of the Herbertson Memorial Lecture.⁷

Herbertson died in 1915. Miss E. J. Rickard was at the time Correspondence Secretary. A successor to Herbertson was not easy to find. Meantime Miss Rickard carried out the duties of secretary—an admirable piece of service that should not be forgotten.

In February, 1917, Professor H. J. Fleure was appointed and since that time he more than any other man, has shaped the course of the Association. During all these years he has devoted himself to its upbuilding and the promotion of its aims, within and without its borders. The task has by no means always been easy. There have at times arisen great difficulties not always manifest to the public eye, but these have been overcome and the ship held on to its course. What we owe to him we tried to express in 1938, when he had held the office for twenty-one years.

⁷ A list of the lecturers and the titles of the lectures is printed on page 266 of this volume.

SIXTY YEARS OF GEOGRAPHY AND EDUCATION

A RETROSPECT OF THE GEOGRAPHICAL ASSOCIATION

H. J. FLEURE

THE Geographical Association has aimed at the development of the teaching of geography and it is therefore related both to the evolution of geographical studies and to the changes in education during its 60 years of activity. It will therefore be appropriate if we very briefly review the circumstances in both geographical study and schemes of education which led to its birth.

Until about the middle of the 19th century grammar school education in Britain on the humanist side had been in the main the study of classics, chiefly Latin, and these dominated university life, with mathematics as their one rival there. A few really knew enough of the classical languages to enjoy their literature as an enrichment of the mind: the vast majority of boys were supposed to derive from their drill in one or both of the old languages an intellectual discipline concerning which this is not the place to speak. But after 1850-60 there were new stirrings of educational thought, the sons of the moderately wealthy middle class parents in the industrial cities, not easily admitted to Eton or Winchester, needed to learn standard English in place of local dialect. They were going into Parliament and thought it well to know some history; natural science too was beginning to hold up her head and secondary school education was being extended even to girls, especially after 1870. There were not enough classical teachers to cope with the situation, and little prospect of increasing their numbers at all adequately. The new subjects were making inroads on the timetable. The classics as taught in the old days had absorbed an enormous amount of time, and were primarily an education for the more bookish of the sons of the leisured classes and the more learned of the clergy. Methods might perhaps have been adapted to some extent to the new situation; but little was done in this direction so, with the multiplication of secondary schools for boys and for girls, the dominance of the classical languages in schools diminished. Even the Arts faculties of universities, primarily of course the new civic universities and the University of Wales, had to admit the new claimants to recognition. Naturally it was English History, Language and Literature that early won a way in the humanist field, history being envisaged as essentially the chronicle of politics, war and diplomacy. Some writers were opening up other avenues, J. R. Green's *History of the English People*, W. Bagehot's *Physics and Politics*, F. Seebohm's *English Village Community*, even H. T. Buckle's *History of Civilisation*. all no doubt influenced by Guizot and Ratzel, were trying to probe the dynamics of social life, but their efforts had little influence in classroom and lecture room until after the turn of the century. The personal influence of Mr.

John Morley and Lord Acton at the same period was a great factor in the broadening of history to include the evolution of thought, but the study of mutual adaptation between peoples and environments was given little attention by historians in spite of Ratzel's one-sided efforts.

About the turn of the century a large expansion of secondary education took place first in Wales and then in England, and this led to many new developments. Scotland had been ahead of England in education. Of its four universities the youngest, at Edinburgh, was born in the late 16th century. Its clergy were on the whole more intellectual than the mass of their colleagues south of the border, and a knowledge of the Greek Testament was more widespread in the countryside. Some think that these strong traditions have made modern changes rather slower in Scotland.

These adjustments in England, Wales, Scotland and Northern Ireland are one of the main threads of the story to be related in this anniversary account. Before proceeding to that task, however, it is necessary to look at the preparatory stages leading to the birth of our Association from the point of view of geographical study and research.

The work of Galileo, followed by that of Leibniz, Newton and others, had demolished the old egocentric view of the universe as gathered around man, with the sun and stars revolving around his earth. The newer view made vital a study of the movements of the earth and the sun, moon and stars. It had practical bearings primarily in the determination of time and tide, and right into the 19th century "Navigation and the use of Globes" was a subject in some schools. This inevitably became more and more a special application of mathematics and a particular field of research of the mathematical physicists and astronomers; its results in everyday practice are in the tables of the invaluable Nautical Almanac. But in 1650 Varenus published his famous treatise of geography, and died at the age of 28. It dealt not only with the earth in general, land and water, climate and atmosphere, but also with the position, climate and relief of countries though not with their political and social affairs. This famous work was specially esteemed by Newton and retained its prestige for over a century; it is indeed still of considerable interest. As exploration developed and scientific study proceeded towards specialisation, efforts at synthetic statement became more difficult, but the great genius of Immanuel Kant (1724-1804) attacked the problem and in a certain degree foreshadowed the development of ideas of evolution that were to effect a transformation of the study of geography in later generations. His lectures on Physical Geography are an important signpost. Primary exploration meanwhile aroused widespread interest, and the work of Cook in the Pacific naturally stood out.

The Royal Geographical Society of London, founded in 1830, and appealing to a wide public, found special opportunities of securing

support by taking the encouragement of primary exploration as its main field of work during the 19th century. In Germany, meanwhile, Alexander von Humboldt was applying his great genius and splendid industry to what were mainly distributional studies bringing into prominence the relation of climate and vegetation. Isotherms, vegetational zones and so on are results of his efforts. Humboldt died, at the age of 90, in the year in which Darwin's *Origin of Species* appeared and his really creative work was finished before Darwin's began. One wonders what might have happened to geography had these two major influences been more nearly contemporary and co-operative.

The American Geographical (at first Geographical and Statistical) Society, founded in 1852, helped the accumulation of information about all lands and peoples as well as exploratory work. The Gesellschaft für Erdkunde in Berlin, founded in 1828 and the oldest of the many geographical societies of Germany, felt the scientific and personal influence of Humboldt and made scientific enquiry more prominent than primary exploration. It seems proper to mention also the contributions to scientific knowledge published by the Münchener Geographische Gesellschaft and most of all the splendid series of *Petermann's Mitteilungen* with their unique collection of appendices, the *Ergänzungshefte*, over 200 of which appeared before 1939. All this gave Germany a very special position in geographical research.

The French genius of the period expressed itself rather in interpretation and exposition, and the names of Elie and Elisée Reclus and of Vidal de la Blache stand out in the late 19th century and on into the 20th. The Société de Géographie, Paris, was founded in 1821. The group gathering around the *Annales de Géographie* has been of special importance.

Lyell in geology and Darwin in biology played leading parts in developing a dynamic scientific outlook about the earth. Lyell championed the idea of forces now in action as having done a great deal to give lands and oceans their forms and features, so his contribution to physical geographical thought was of prime value. Mary Somerville (née Fairfax) wrote a number of scientific works, including *Physical Geography* published first in 1848, a work far ahead of its time and actually thinking of relations of man and environment. Humboldt expressed his warm appreciation of her work, and so did Sir John Herschel, who also published a *Physical Geography* in 1861. Mrs. Somerville, nearly 90, handed the preparation of a sixth edition to H. W. Bates and it appeared in 1870; he issued a further edition in 1877. She died in 1872, aged 92, and her name, as that of a pioneer female contributor to modern science, is commemorated in that of Somerville College, Oxford.

Lectureships existed for a short time at University College, London, and at what was then called the Birkbeck Institution. William Hughes, issuing books from 1840 onwards, became professor at King's

College, London, in 1863, following C. G. Nicolay. Hughes was the great advocate of the unity of geography and, had his views been earlier accepted by Sir R. Murchison, at the Royal Geographical Society, much trouble and later confusion might have been avoided.

The physical aspects of geography were greatly strengthened in teaching, by the masterly *Physiography* of T. H. Huxley. But, in the 19th century, school-books on the subject, for the most part, were at a very low level educationally and became rather forerunners of such valuable gazetteer works as the *Statesman's Year-Book* and *Whitaker's Almanack*. Geography in education had become mainly a matter of memorising names and was accordingly relegated to young pupils in the phase of memorising rather than that of learning to trace sequences of cause and effect. Here and there Huxley's *Physiography* helped towards better things, but the human side, in Britain, was badly neglected until John Scott Keltie's investigations in Europe (1884) led to the appointment of Halford Mackinder in 1887 to teach at Oxford as Reader in Geography, with the support of the Royal Geographical Society. Mackinder's personality was a vital factor in the development of the subject as well as in the beginning of our Association. His handsome presence, with flashing eye and a gift of oratory that has rarely been bettered, made him an inspiring lecturer who drew large undergraduate audiences. His early training appears to have been biological but his interests were concentrated on the relations of geography and history. In this field he paid special attention to problems of political power rather than to social evolution ; and, indeed, he seems to have felt but little the influence of Darwin.

The 19th century in Britain witnessed the rise of the Ordnance Survey and its maps from Major General Colby's pioneer effort. Humboldt's isothermal and other lines on maps were matched by contour lines helping to delineate orography. The appeal through the eye to the understanding was greatly enhanced late in the century by the use of graded tints of brown and green, largely under the leadership of Dr. Bartholomew of Edinburgh, a member of an interesting group in that city, which contributed in several ways to geographical research and education. A few of them must be named. Sir John Murray, who became, almost accidentally, leader of the Challenger Expedition for the exploration of the oceans and their life, made the great series of Challenger Reports a scientific classic. P. G. Tait, Professor of Natural Philosophy at Edinburgh, did not touch geography himself, but his pupil, A. J. Herbertson, became one of the chief personalities in the subject and in the development of the Geographical Association. Patrick Geddes, deeply influenced by ideas of evolution as expounded by Darwin, Herbert Spencer and Huxley, was for one term of each session Professor of Botany at University College, Dundee. His genius wandered in many fields, but, perhaps most of all, sought clues to social evolution ; or it might be more strictly true to say that he tried to picture the distribution of forms of human society. Hugh

Robert Mill applied his mind to the study of distributions of physical phenomena but, more than any of the others, sought a synthesis in descriptive work, helped by his powers of almost poetic diction, the more wonderful in the case of a man whose sight was, for most of his life, too poor for him to be able to use manuscript when speaking. He was as inspiring a lecturer as Mackinder and as factual as Herbertson. (Sir) George Adam Smith, later for many years Principal of Aberdeen University, applied geographical concepts splendidly in his great classic, the *Historical Geography of the Holy Land*; and his compelling eloquence, though used more in biblical exegesis than in geography, helped to give a philosophical aspect to our studies.

Mackinder and, still more, Mill and Herbertson were to play great parts in the development of the Geographical Association, with the genius of Geddes in the background, always, as he himself put it, "ringing other men's bells and running away." George Adam Smith had become too absorbed in other matters to be active amongst us, but we had his sympathy and, now and then, his personal help.

Finally, in this review of preliminaries we turn to the universities and schools. The latter were hampered by poor textbooks full of names to be memorised, but here and there a teacher was struggling to make the subject more interesting. In particular, some public school masters, notably B. B. Dickinson at Rugby School, wanted to interest boys in the world and its life. It was some non-scholarship boys of the public schools who came to geography classes, and the Army Preliminary Examination had been the goal for many of the less bookish pupils until it was abolished. The schoolmasters concerned were not in very close touch with broad movements of thought; they were devoted classroom leaders wanting to interest their boys. The "magic lantern" and the photographic lantern slide were new gadgets, and the teachers wanted to use them and to have map-slides as well as views. Wall-maps were still at a primitive stage, though globes were fairly widely available. Maps were demanded, even by famous scholars whose names could be given, to show France in brown, the German Empire in green, the Tsar's dominions in yellow and the British Empire in optimistic rose-pink. Early efforts to show orography in brown and green with political boundaries as red lines were scorned by some of these scholars as unintelligible. It was B. B. Dickinson's primary service to geography that he tackled the problem of class-room illustration and in this way brought our Association into being.

Concerning the universities there is little to be said. Following Scott Keltie's report, geography lectures at Oxford, Cambridge, London, Manchester and Edinburgh might lead to certificates or diplomas but were, as yet, unrelated to studies for degrees and honours. And of course, along with this, one notes the complete absence of scholarships and other awards, and of any reasonable place for geography in local examinations as the qualification schemes of various examining authorities were then called. The then existing South

Kensington examinations however recognised physical geography, probably owing to Huxley's influence and his famous *Physiography*.

Such, then, was the state of affairs when the Geographical Association was born in 1893. It has been generally agreed that the prime mover was B. B. Dickinson of Rugby with the definite and limited aim of arranging postal exchanges of lantern slides between school-master friends, and of preparing new slides especially of maps. The exchanges were visualised as occurring between teachers especially concerned in the preparation of boys for Army Entrance, but we find that, soon after the Association began, schools of other types, including girls' schools, became interested. Dickinson's original circular sent out in January, 1893, must be reproduced in full, with its supplementary information.

Proposed Scheme for the Teaching of Geography.

January, 1893.

Dear Sir,

I am trying to start a private Association of Public School Masters and others interested in the subject, to promote the Study of Geography by means of lectures given as part of the school work and illustrated by lantern-slides. In the instances where this plan has been tried, the success has been very marked both in interesting the boys and in driving home what they have read in their textbooks.

I have reason to believe that there have been, of late years, many isolated efforts in this direction, but the subject is so far-reaching that 'isolated' effort must result in a great expenditure of time and money, which could, by subdivision of labour, be greatly economised.

My proposal is that we should agree to divide, say 'the British Empire' to begin with, into sections the size of which will depend on the number of members joining the Association. Each man will choose one section or more, prepare a certain number of copies of a skeleton lecture and of sets of illustrative lantern-slides, on such lines as shall be determined by the Association. Any member will then be entitled to use the sets of lantern-slides-lectures for a term's work, on such conditions as shall be hereafter determined.

May I ask you, even if you do not see your way to helping me yourself, at least to put the matter before any of your colleagues who are interested in the teaching of Geography. I shall be glad to hear from anyone who is willing to join me, *as soon as possible*; for if the scheme is to be carried out, no time should be lost in setting to work.

Believe me

Yours faithfully

B. BENTHAM DICKINSON.

Bloxham House, Rugby.

P.S. A few explanatory Remarks follow :—

Remarks.

1. *Sources of Assistance.*

- (a) The Royal Geographical Society have expressed their approval of my scheme, and their willingness to help; and at their last meeting elected me a Fellow of the Society.
- (b) For some time past I have been in correspondence with Sir C. Tupper, Agent-General for the Dominion of Canada and, in a personal interview, received from him and from Mr. Colmer, Chief Secretary, cordial promises of help.
- (c) Mr. O'Halloran, Secretary of the Colonial Institute also entirely sympathised with my proposals.
- (d) We shall, I believe, find other bodies equally willing to aid us and I should suggest that we approach for this purpose,
 - (i) Colonial Agents
 - (ii) Government Offices
 - (iii) Foreign Consuls.

2. *Sources of Material.*

Besides material obtained from the above :—

- (a) *Slides already in existence.* There are vast numbers of slides to be hired from dealers. I have two catalogues by me of some 30,000 slides, many of which would be useful to us. These slides can be hired at 1s. a doz. per day (2s. per week), or bought at 1s. to 1s. 3d. each. I have no doubt that we should be able to come to some understanding with dealers to be allowed special terms.
- (b) *Collections of Photographs, etc.* There must be many such, whose owners would be very willing to lend them to a responsible body.
- (c) *Prominent Photographers.* There are in every country photographers who would send us photos at a low price in return for mentioning their names. I have the addresses of these and can get others.

3. *Preparation of Slides*

- (a) *Simplicity.* The many excellent Hand-books on Photography give very full and very clear directions for all the processes in connection with Copying photographs of any size and slides, and with the making of lantern slides.

The process is very simple and can be learnt in a very short time. Moreover, the apparatus can be obtained at small cost, quite good enough for our purpose.

- (c) *Cheapness.*
 - (i) *Wholesale firms* charge from 1s. to 1s. 6d. for each slide.
 - (ii) *Home-made*, when once the apparatus has been set up and apart from the time spent.
 - $\frac{1}{4}$ plates for Negatives, 1s. to 1s. 6d. per dozen.
 - $\frac{1}{4}$ plates for Lantern-slides, 1s. to 1s. 3d. per dozen.
- Chemicals, very cheap.
Indeed we can say that 4d. is an outside price for each slide made at home.¹

4. *Appliances for use of Lantern in School.*

In consequence of an advertisement in the Journal of Education, I went to see George Philip and Son, 32, Fleet Street, E.C., and thoroughly inspected the special goods which they offer.

- (i) *A Technical Lantern* for either oil or oxy-hydrogen at £4 4s.
- (ii) *Semi-opaque blinds*, which admit quite sufficient light to allow notes being taken.
- (iii) *Special Screen* with opaque white back and projecting black side-wings and top piece, which cut off sufficient light to admit of a very distinct image in diffused daylight.

N.B. I have no doubt that, as members of the proposed Association, we should obtain favourable terms.

¹ This, of course, refers to costs in 1893.

5. *Further aims of the Association.*

- A. To extend the scheme
 (i) To all other countries
 (ii) To modern history.

I may remark that a year ago a friend of mine and I prepared a tentative lecture on the Crimean War, with about two dozen slides, photographed from Cassett's History of the War. I can answer for the interest shown by my boys and for the grasp they had afterwards of the chief battles.

- B. To discuss a scheme for the establishment of Geographical Museums.
 C. To approach Headmasters with a view
 (i) to obtaining increased facilities for making Geography a genuine study
 (ii) to arranging a Cycle of sections that the demand for any one set of slides may be as small as possible.

6. *Suggested Outline of Lecture.*

British North America.

- Sect. i. (a) The Eastern provinces.
 (b) Quebec, Ontario.

- Sect. ii. (a) Manitoba—Rockies.
 (b) Brit. Columbia and Basin of Mackenzie.

By arrangement and omission of certain slides, this might be taken in two lectures.

Sect. i. (a).

- | | |
|-----------------------------------|-----------------------------------|
| i Map of British North America. | xiv Gut of Canso. |
| ii Map of U.K. on the same scale. | xv Sydney and Bras d'or. |
| iii Map of the Sect. | xvi Inland scenery. |
| iv Map of U.K. (to scale). | xvii Northd. St. Sum. and Winter. |
| v R. St. John (boundary). | xviii Charlottetown. |
| vi Panorama St. John. | xix Agriculture and Lumber. |
| vii The Tide, Fundy B. | xx Newfoundland. |
| viii Lumber Forest. | xxi Ireland (same scale). |
| ix Fishery, N. Scotia. | xxii Fishery and Agriculture. |
| x Coast, C. Sable. | xxiii Panorama St. John's. |
| xi Panorama Halifax. | xxiv Trinity B. and Cables. |
| xii Mining in N.S. | xxv Map of Ocean and Gt. Banks. |
| xiii Cape Breton I | xxvi Scene on Gt. Banks. |
- Also groups of natives, etc.

The recipients included the Royal Geographical Society and the Royal Colonial Institute, as well as a large number of masters in public schools. The Royal Geographical Society referred the matter to Mackinder at Oxford who had already received a circular letter from Rev. T. Field, headmaster of the King's School, Canterbury, advocating the pictorial method of teaching classical history.

The meeting at Christ Church in May was called not to found a geographical association but to discuss schemes for the improved illustration of geographical and other teaching in schools. Four of the five signatories were interested in geography, the fifth was Rev. Field.

Oxford, 4th of April, 1893.

Dear Sir,

In connection with schemes for the improved illustration of Geographical and other teaching in Schools, which have lately been circulated by Mr. Field of Canterbury and also by Mr. Dickinson of Rugby, it has been arranged to hold a Meeting of School-masters and others interested at Oxford, on Saturday, the 20th of May, at 4.30 p.m. in the New Common Room, Christ Church.

It is hoped that the discussion will lead to the adoption of a practical scheme.

We trust that you may find it possible to be present, and to place your experience at our disposal.

We remain,

Yours faithfully,

DOUGLAS W. FRESHFIELD,
(Hon. Sec. to the Royal Geographical Society.)

T. FIELD,
(Head-Master of King's School, Canterbury.)

H. J. MACKINDER,
(Reader in Geography in the University of Oxford.)

B. B. DICKINSON,
(Assistant-Master in Rugby School.)

C. E. B. HEWITT,
(Assistant-Master in Marlborough College.)

Kindly reply to

B. B. Dickinson, Bloxam House, Rugby.

The meeting was attended by the following :—²

J. S. Phillpotts, Esq., Headmaster of Bedford Grammar School.

Rev. T. Field, Headmaster of King's School, Canterbury.

H. J. Mackinder, Esq., Reader in Geography in the University of Oxford.

Rev. W. D. Fenning, representing Haileybury College.

Rev. C. E. Prior, representing Merchant Taylor's School.

J. Robinson, Esq., representing Dulwich College.

J. S. Masterman, Esq., representing University College School.

H. B. Jupp, Esq., representing Clifton College.

H. H. Allard, Esq., representing Bedford Grammar School.

T. A. Bell, Esq., representing Sherborne School.

B. B. Dickinson, Esq., representing Rugby School.

A number of others expressed sympathy and regretted they could not attend.

The meeting decided that lantern slides were a valuable auxiliary in class work. If slides were few in number, and well selected for questioning, there was little danger that the lesson would degenerate into an entertainment; complete darkening was not necessary so dangers to discipline need not be too serious. The meeting confined itself to the question of geography and started an effort to collect slides of the geography of the British Empire.

It was next decided to form an Association for the promotion of geographical teaching generally, the pictorial method, which had been the immediate cause of the meeting, being after all only one of the ways of driving knowledge home. An Association could approach Examining Bodies, help museums and disseminate ideas and suggestions for the better teaching of geography. It was felt that the best means would be to secure the help of the Royal Geographical Society and other learned societies. Messrs. Fenning of Haileybury, Robinson of Dulwich and Dickinson of Rugby were appointed as a preliminary committee and a suggestion of five shillings as the annual subscription for individuals was carried. Twelve schools were chosen, to be asked to subscribe three guineas each as an experiment to form a fund for making or buying sets of slides, allowing each of the schools 4 to 6 sets of 10 to 12 slides each for use during Advent Term, 1893, and Lent Term, 1894.

By June, 1893, the preliminary committee saw its way to prepare slides of the "physical and political geography of British America, British Africa, British India and British possessions in the Mediterranean with, possibly, a few sets illustrating certain aspects of Physiography and General Geography." The June circular aimed at finding 12 schools willing to try the experiment. A multigraphed circular gives a skeleton list suggesting 22 sets of slides as a primary effort. Six schools agreed (Rugby, Haileybury, Marlborough,

²The names are taken from "The Teaching of Geography in Schools," a report of the meeting held on 20th May, 1893, held amongst the archives of the Geographical Association.

University College School, Shrewsbury and Nottingham High School).

The preliminary committee called a meeting to be held at University College, London, on August 3rd, under the chairmanship of Mr. H. W. Eve, headmaster of University College School, to receive a general report and to elect a committee of management and officers of the Association. The time chosen proved inconvenient and the meeting was a small one. Dr. Gow (Nottingham), Mr. W. W. Magee (University College School), Mr. J. Robinson (Dulwich), Mr. G. L. Harrison (Fettes), Mr. Eve and Mr. Dickinson attended. The meeting was specially important in that it elected Dr. Hugh Robert Mill as Chairman, Mr. C. E. B. Hewitt of Marlborough as Honorary Treasurer, Mr. Dickinson as Honorary Secretary, and Mr. Robinson (Dulwich, and Rev. J. Ll. Dove (Haileybury) as members of Committee. Thus began the valuable connection of Dr. Mill with the Association, making him almost one of the founders as well as its devoted counsellor and champion. Dr. Mill at this time was Librarian of the Royal Geographical Society. At that date 35 schoolmasters had become members. The Royal Geographical Society allowed Association members to receive the newly established *Geographical Journal* at a reduced rate, while lantern slides made for the Association could be bought at special prices, Messrs. G. Philip and Son, 32, Fleet Street, allowing Association members a special discount of 10 per cent. on various goods. The Royal Colonial Institute, through Mr. O'Halloran, gave three guineas as a subscription to the Association and continued this support for a number of years. Mr. Dickinson issued a catalogue of 238 slides specially prepared, and obviously felt the strain of the work involved in slide-making and in the exchange of sets of slides through the post.

The Association could not remain a private group of a few schoolmasters exchanging lantern slides, and it was proposed to approach the Army Examinations Committee and the Oxford and Cambridge Local Examinations Councils with, if possible, the co-operation of the Royal Geographical Society, the Royal Colonial Institute and the Imperial Institute. An annual meeting, suggested for the week before Christmas, 1893, fell through because of difficulty about a date, but it was decided to make a great effort to hold one in 1894. By the middle of 1894 it had been decided to circularise a large number of schools and to include girls' as well as boys' schools. The circular was to ask schools to explain any changes in examination systems deemed advisable by teachers of geography. Thus began what was to be a main activity of the Association for more than 30 years. The primary hope was to get examination papers set and looked over by expert geographers, to subdivide the subject into General (Physical) Geography of the Globe and Special Geography (Physical, Political, Commercial and Historical Geography of a selected continent). It was urged that no certificate in geography should be granted without evidence of reasonable knowledge of physical geography and that, in certain competitive examinations, geography should either be made com-

pulsory or be allowed a quota of marks which would make it important.

Mr. Robinson (Dulwich) got 12 schools to reply to the circular and the Association's Committee worked by correspondence. Mr. Dickinson prepared 250 slides and advanced what was necessary to meet expenses, but was allowed sixpence per slide which he prepared by photography. Some schools urged that teaching experience was as important as knowledge of the subject in an examiner, that the scope and limits of the subject needed close definition and that competitive examinations must not be overloaded. Dr. Mill wisely urged that the Association should not issue a school textbook as this would cramp initiative and arouse criticism. He offered to look critically at any syllabus the Association might draft to see that it was geographically sound; he left the educational aspect to others. The Association held its first annual meeting on December 21st, 1894, at the Royal Colonial Institute with Dr. G. R. Parkin, Secretary to the Rhodes Trustees, in the chair. The membership was stated to be 50 individual members and seven schools. Twenty-five persons attended and among them were seven women, an indication that girls' schools were coming in, as Mill had urged. An expenditure of nearly £44 left a debt of £8. 6s. 7d. owed to the Honorary Secretary, Dickinson. J. S. Masterman was asked to act as Assistant Honorary Secretary and for the next five years we have his careful minutes and reports. Mill was made Chairman, Mackinder lectured on "Geography as a training of the mind" and Dickinson gave a demonstration of lantern slides. The *Educational Review* (January, 1895) gave a sharp criticism. The meeting was too long; 700 grammar schools should be drawn in; examining authorities must be approached. The transition from a small group exchanging lantern slides and a small committee meeting once or perhaps twice a year to larger broader effort was beginning. It led beyond Dickinson's active interests and, while remaining a loyal member, he handed on the direction of policy to other hands. Mill remained Chairman and special counsellor. In 1895 about 300 letters were sent to as many schools asking for opinions on four points. Should examination papers in geography be prepared or at any rate reviewed by experts? Should a knowledge of physical geography be an essential feature in a course and in examination, and if so what should be the syllabus? Should one ask for a knowledge of the whole world in general or for a more detailed knowledge of a region or section (the British Empire was among the suggestions)? Should geography be a compulsory subject for some competitive examinations (e.g., Army)? Replies from 80 schools added themselves to the 12 replies sent to a previous circular in 1894. A quarter of the replies came from public boarding schools, nearly a half from grammar schools, many of them old endowed schools, and the remainder from various modern schools, among which one may specially mention University College School, London, because of the school's support of the Association. Seven of the replies came from girls' schools.

These replies ranged widely. One said that the writer and his (famous) school were not at all interested in geography. Some feared that geography might damage the prestige of the "real intellectual disciplines," which were explained to be Latin and Mathematics. Some hoped that geography would remain outside the examination schemes to become a joy to pursue when school days were over, a hint of the widespread dull "discipline" of school subjects at the time. The large majority of the answers were more enlightened and may be summed up as follows.

1. Examination papers in geography should be set by experts with adequate experience of classroom teaching.
2. Physical geography as discussed in pages 15 to 63 of Chisholm's *School Geography* should be a part of the examination.
3. General geography of the world and a special knowledge of a selected region should be required.
4. Geography should either be a compulsory subject in certain examinations (especially Army examinations) or, if optional, should carry approximately the same marks as history.

About this time Mill added to his many services the preparation of what became his famous bibliography of books on geography for teachers' reference. Also it seems that several requests came from elementary schools asking that they might be allowed to borrow slides. This apparently raised problems of organisation and distribution.

The results of the correspondence summarised above were sent to the Royal Geographical Society, the Royal Colonial Institute and the Teachers' Guild which endorsed the suggestions. The Royal Scottish Geographical Society thought geography should be specifically mentioned in the "English" group in the Leaving Certificate but hesitated to urge a new separate subject. The Association of Teachers in Secondary Schools, Scotland, thought the scope of geographical study too extensive to form an integral part of general secondary education. Manchester Geographical Society asked the Association to promote the teaching of geography through all three years of the course for pupil teachers and to plead for geography as a subject in the preliminary examination at the Victoria University, also as an independent subject for degrees. H. Yule Oldham drew attention to what was being done at Cambridge (see below), Mackinder gave his support from Oxford, and Herbertson, about to move to Scotland from Manchester University (where he taught 1894-96), gave details about Scottish examinations. He also raised the question of Physiography, a subject in the South Kensington examinations in Science and Art.

The memorandum sent to Examining Authorities urged that physical geography should be the basis of all teaching of the subject, that a general knowledge of world geography based on physical principles should be supplemented by a special study of a selected region, that all examining bodies dealing with schools should advocate work throughout the pupil's career on the above lines, and that the

two subjects, geography and history, should have separate papers of about equal maximum marks.

The Civil Service Commission said that to emphasise physical geography any further would give unfair advantage to those who also took the subject "Physical Geography and Geology." This was met by urging that questions in general geography should have a physical basis rather than that physical geography should be treated separately; it was the relation between physical and human that mattered. Cambridge said its local examinations had recently given added emphasis to the physical basis and were now to make geography an independent optional subject for higher local examinations. Oxford made a similar reply and both received some criticisms of their examination papers. The O. and C. Schools Examinations Board replied by making some alterations in its regulations to ensure due attention to the physical basis of geographical phenomena. London University did nothing. The College of Preceptors claimed to have acted on the principles laid down by the Association but was met with drastic criticism of papers set. The Scottish Education Department could not agree to a separate paper in geography in connection with the Leaving Certificate. The Victoria University replied by placing geography on its list of options for the preliminary examination and by making an adjustment of the syllabus.

In this first major educational campaign of the Association J. S. Masterman's devotion and skill in drafting and redrafting reports, memorials and correspondence were outstanding. Meanwhile Dickinson continued his lantern slide work, gave a demonstration to the Teachers' Guild, issued a catalogue of slides and lectured to the Association on geography as a school subject. In 1896 E. R. Wethey lectured on "Blackboard and Oral Teaching." Both lectures were printed and circulated to members. J. G. Colmer, representing Canada in Britain, strongly supported Empire Geography and presided at the Annual Meeting, December, 1896.

The headmasters of public boarding schools were unsuccessfully asked to make geography a subject at their Entrance Examination, a request supported by the Preparatory Schools. Delicate negotiations with the Teachers' Guild spread over some years with little result, while a Guild scheme for a lending library of portfolios of maps and illustrations of different countries failed for lack of endowment and because of practical difficulties. It is interesting that a similar scheme of the Association nearly 40 years later also failed, this time because of the difficulty and cost of adequate mounting and protection of the illustrations to make loans by post possible. An attempt to draft a syllabus on behalf of the Association soon showed that it was better to welcome drafts made by teachers in their own names. There must be no official creed of the Association. Mill published his invaluable *Hints to Teachers of Geography on the Choice of Books for Research and Reading*. Negotiations with Mr. H. O. Arnold Forster and also with Messrs. George Philip and Son about atlases led to adoption of some of

the Association's recommendations. The Committee was strengthened by new members: A. W. Andrews (University Extension Lecturer); F. G. (later Sir Frederick) Ogilvie (at first, Edinburgh); R. A. (later Sir Richard) Gregory (London); G. G. Chisholm (1895-1908 Lecturer at the Birkbeck Institution, later Birkbeck College); Douglas Freshfield who presided over the Association (1897-1911) and, later on, R. D. Roberts (University Extension Registrar, London).

1899 witnessed the organisation at Oxford of the "School of Geography" with Mackinder continuing as head, Herbertson appointed as Assistant, and H. N. Dickson and G. B. Grundy as lecturers in physical and in ancient geography respectively. Dickson's able personality and his influence as a teacher stand out. Herbertson for some time had been helping Bartholomew to produce the *Atlas of Meteorology*. In his new position he took an increasing part in the Association's work and in 1900 succeeded Dickinson as Honorary Secretary. His strong suit was tutorial guidance and private counsel rather than lecturing. Dickinson had opened up new possibilities of illustration by his work on lantern slides and hand maps, which came under the Diagram Company organised by Andrews and himself. Dickinson and Masterman remained members of the Committee.

Herbertson's first move was to proclaim that all geography teachers in every type of institution would be welcomed as members of the Association. He gathered a small fund to meet the risks of foundation of a journal, and Mr. T. G. Rooper, H.M. Inspector of Schools, a member of the Committee, generously guaranteed any consequent deficit in the Association's total budget for three years provided the journal was issued gratis to members. The Association has greatly profited by generous guarantees from time to time, and it is interesting that none of these guarantees has yet had to be called up.

When Mill gave up the librarianship of the Royal Geographical Society to head the British Rainfall Organisation he felt he must resign from the Association's Committee. He was invited to become an honorary member of the Association and he maintained his interest in the Association to the end of his long life. He was its President in 1932. He died in April, 1950, in his 89th year.

With primary emphasis on improved education through geography in all types of schools the membership of the Association grew and changed, and Herbertson began the publication of *The Geographical Teacher*, sent three times a year free to all members. Vol. I contains one number for 1901 and three for 1902; later volumes contain six numbers covering two years.

The first number has an able and enthusiastic introduction by the President, Douglas Freshfield. It gives the famous question of Benjamin Jowett—Can geography be so taught as to make people think? Jowett had pleaded, unsuccessfully, for a chair of geography at Oxford but he lived long enough (d. 1893) to see the Readership established (1887).

The first volume has articles by James (later Viscount) Bryce, Sir Archibald Geikie, and Dr. A. M. Davies, who gave long and devoted service especially to the field-work side of the Association ; by two women, one of whom, Miss Joan Berenice Reynolds, kept up a life-long enthusiasm for the Association ; by B. B. Dickinson and C. C. Carter, already veterans in the campaign, and by Herbertson. Herbertson's article pleads for use of one's own locality as an object of study for pupils and for the concomitant study of world distributions. It characteristically solves the problem of choice between alternatives by accepting both, and so it may be said to combine the points of view of Geddes and of Humboldt. Meanwhile the Education Act of 1902 was spreading in England the scheme of secondary schools under county council direction following the initiative of Wales in the previous decade. The new schools were, at least sometimes, ready to accept what was called " the new geography " and membership of the Association expanded steadily.

In the universities, L. W. Lyde, previously headmaster of Bolton school, began his long tenure of the new chair of economic geography at University College, London, in 1903, on a microscopic salary. Lyde was a good classic with a special aptitude for picturesque statement, which was nourished by his strong views on many international matters, including his antipathy to the Dutch and the Prussians. He wrote many text-books, among which we may mention specially *Man and his Markets*. He gave much service to the cause of geographical education with a large humanist connotation of the term. He believed in dividing a continent into political units rather than natural regions, which he thought too subjective and indefinite.

H. J. Mackinder resigned his Oxford Readership in 1904 and his connection with University College, Reading, about the same time, having become Director (1903) of the London School of Economics where he had been Lecturer in Geography since 1895. He was becoming deeply interested in politics, and London was a more appropriate base than Oxford. Mackinder resigned the Directorship of L.S.E. in 1908, and was made Reader in Geography in that year and Professor in 1923 ; he retired in 1925. At Cambridge a Board of Studies in Geography was created in 1903 with the already existing staff, including H. Yule Oldham in Commercial and Political Geography and Philip Lake in Physical Geography. J. Macfarlane went to Manchester University in 1903 following a succession of lecturers there, and he remained at Manchester until he was elected to begin a department of geography at Aberdeen in 1918. His *Economic Geography* is still in use, with revisions. In 1904 H. N. Dickson, one of the ablest of our pioneers, and primarily a climatologist, became lecturer in geography at University College, Reading, and P. M. Roxby left Oxford to begin his long and devoted service at Liverpool which continued until 1944. Roxby's work, warmly appreciated at Liverpool University, has hardly been adequately valued outside. He was one of four brothers in a family rich in ecclesiastical connections

with Maude as well as Roxby names recurring. He was rather over 6 feet 4 inches in height and was the shortest of the brothers. Sparsely built, his bony frame was yet so heavy as to strain his heart and to make him go "fallow" now and then. He was primarily prophet and apostle and some thought he would have made a grand archbishop. He was notably free from any trace of that superiority complex which has troubled relations between British and non-European peoples in so many cases. His efforts for Chinese, Egyptian and other overseas students at Liverpool were a most notable feature. He paid long visits to China and eventually resigned his chair at Liverpool in 1944, a year or so before reaching the normal age of retirement, and went to China to work for education and international understanding there. He had just well begun this work when he died suddenly. Our Association owes a great debt to his idealism.

In the *Geographical Teacher* we find an increase of reviews, said long afterwards by many members and notably by C. C. Carter, to be the best feature of our magazine. Detailed critiques of school examination papers were another early feature, apparently with considerable influence, as later schemes for vetting examination papers beforehand have shown. With the Association's membership increased to 500 in 1905, and Herbertson's election as head of the Oxford School, with the title of Reader, the need for delegating some of the Association's work became obvious, and J. F. Unstead, then recently appointed lecturer in geography at the newly founded Goldsmith's College, South London, became Honorary Correspondence Secretary to help his old teacher, Herbertson. A characteristic article by Unstead in the magazine emphasises the dangers of isolating studies of different distributions and the need for treating life as a whole. The article illustrates the firm conviction underlying his gentle temper. Herbertson at the same time produced his famous paper on Major Natural Regions, an effort toward synthesis which was to be developed in successive revisions especially with increased recognition of vegetation as, in a sense, a result of a combination of physiographical, pedological and climatological factors, but not yet primarily concerned with the holistic study of man and environment together. Articles by Albrecht Penck on glacial action in the Alps, by E. J. Garwood on Alpine physical geography and by (Sir) J. Arthur Thomson on the geographical distribution of animals show that the editorial net was cast widely as well as wisely to interest specialists of many types in the Association's synthetic effort. In 1905 Mill generously gave the copyright of his *Hints to Teachers of Geography* to the Association on condition that a new edition should be prepared. In this work J. F. Unstead took an important part and the *Guide to Geographical Books and Appliances* appeared in 1909. Holiday courses for teachers, an idea that Geddes seems to have started, were organised by Herbertson at Oxford and by J. Fairgrieve (1909) and later H. J. Fleure (1910 onwards) at Aberystwyth, also by R. N. Rudmose Brown of Sheffield University

and helpers from Leeds. They were not an activity of the Association as such, but they strengthened it materially.

The Association began to build up a small library and kept reissuing a library catalogue in the magazine. The lantern slide loans remained a difficulty connected with problems of packing for despatch by post, and inevitable damage. Another difficulty, also perennial, was that of finding suitable "teaching articles" for the magazine.

The presidency (1897-1911) of a man of the scientific distinction of Douglas Freshfield was a great source of strength to the young Association, and, to take his place when he was away from England exploring distant mountain ranges, G. G. Chisholm (then lecturer in geography at Birkbeck College, London) was appointed in 1907 Chairman of the Committee. Chisholm had a remarkable knowledge of commerce and its historic evolution. A colleague walking with him near the "Golden Gate" at San Francisco asked for information about a tramp-ship steaming in. Chisholm said it had probably come from A and carried B; both statements were afterwards found to be exact. Chisholm's interest was in commerce as a possible help to better international relations a cause which had his deep and passionate loyalty. In 1908 the University of Edinburgh called Chisholm to inaugurate a department of geography, giving him the title of lecturer, so his invaluable work for the Association as one of its senior councillors had to become intermittent. The Association thereupon elected (1908) Mackinder as Chairman of its Committee and he held this office until his death in 1946. Lyde and Chisholm both lectured at Birkbeck, 1907-8, and Lyde 1908-9. Unstead became lecturer in 1909 and professor in 1922; he resigned in 1930. Other university developments were taking place in these years. In 1908 Sheffield University appointed R. N. Rudmose Brown as lecturer in geography. The University of Glasgow appointed Captain (later Sir) H. G. Lyons, F.R.S., as lecturer in geography following his distinguished service as organiser of the Survey of Egypt.

In view of the Association's later connection with Aberystwyth (head office 1917-30) it seems desirable to put on record the various changes in the position there. In 1906 a special gift from Dr. R. D. Roberts made it possible to invite A. W. Andrews to give a series of lectures. In 1907, to continue this effort, H. J. Fleure, hitherto assistant lecturer in zoology, geology and botany, gave up botanical duties and added a lectureship in geography to his other work. In 1908, on the departure of Professor Ainsworth Davis, Fleure was appointed *ad interim* head of department and lecturer in zoology as well as lecturer in geography. O. T. Jones was elected lecturer and head of department in geology but could not come until 1910. Fleure was therefore made *ad interim* head in geology as well, with the help of a former graduate, Gladys Wrigley, 1908-9 (she had obtained one year's leave of absence from a teaching post in a girls' grammar school), and of A. H. Cox, 1909-10. Miss Wrigley a few years later became the editor of the *Geographical Review* and has only recently retired (1951).

after more than 35 years of very distinguished work in U.S.A. A. H. Cox some time afterwards became professor of geology at University College, Cardiff, and a well known worker in the Welsh field. In 1910 O. T. Jones became professor of Geology at Aberystwyth and H. J. Fleure lecturer in geography and *ad interim* professor of zoology.

Great Britain was at last beginning to be spotted with geography departments in universities, however inadequately the subject was as yet recognised. A little improvement in the subject's status was made by Oxford which recognised Herbertson's distinguished work and made him professor, without however, definitely creating a permanent chair of geography. The only chair, as yet, definitely allocated to the subject was that at University College, London, occupied (1903-28) by Professor L. W. Lyde, and this state of affairs was not altered until 1916-17.

The recognition of geography in examinations was occupying the Association's attention at the same time as it was working for the creation of university departments. We can see the hands of Mackinder, Chisholm and Lyde in the inclusion of geography by the University of London as a compulsory subject for the Intermediate examination in economics and as an optional subject for the Intermediate in arts and the final B.A. pass degree, at first for internal students only. Candidates for B.Sc. (Economics) were to be required to take special instruction in geography. Honours Schools of geography in universities were as yet unborn and this, as well as the paucity of professorships, gave opportunities to oppose recognition of the subject, but the examination for Class I Clerkships in the Civil Service was expanded to include geography as an option, an option too long taken as a "speculation" by candidates who had "crammed" for it. Though the University of Birmingham had no department of geography, its department of geology, under the famous Professor Charles Lapworth, gave a course for an optional intermediate examination in geography.

To come to more intimate matters, the notable name of James Fairgrieve appears in the list of the Committee for 1909 and his contributions to the magazine begin at once. His life-long effort has been directed to the improvement of teaching and all his colleagues have learned from him that the teaching of geography is a topic in its own right alongside of geography as a subject. His well known book *Geography and World Power* is full of thought and has had a deservedly wide circulation with translations into several foreign languages. His work for improvement of visual aids for teachers of our subject has been a notable feature especially in his years of retirement. His keenness in battle for his favourite ideas, combined with his generosity in, and out of, the fight, and his textbooks have given him a very special place in the development of geographical education in schools of most types.

Mr. J. S. Masterman about this time resigned the Honorary Treasurership and so brought to an end his invaluable services from

1893 onwards. Characteristically he paid a life membership fee before the Committee had time to ask him to accept honorary membership. It is a matter of regret among later officers that Masterman's patience and skill in the detailed work of the Association have not been more fully recognised.

By 1911 the membership was nearly 1,000, the year's receipts, including a balance brought forward, were £351, and there was a reserve fund of £152. The balance carried forward was £110 and the Association expanded the magazine. The reserve fund was largely built up from life membership fees though, in the early days of deficits, these had been used for current expenses. The fees thus used were later replaced, and, with occasional setbacks to cover deficits, the reserve has continued to build itself up ever since.

During these years of expansion, A. T. Simmons and his coadjutors tried to arrange regular meetings of the Association in London, after the fashion of learned societies in general. Older members will still remember the once universally used *Practical Geography* by A. T. Simmons and Hugh Richardson, which probably rescued geography from being merely matter to be learned from books, and which pointed the way to special classrooms for geography, a topic that was soon ventilated to great purpose in the magazine. The scheme for monthly London meetings of the Association gave place to a scheme for branch meetings with North London and South London branches; other branches were organised in Bournemouth, Bristol, Sheffield and Manchester and, a little later, in Chester and some other towns and Hampshire. A very early realisation of the idea of the Geography room was brought into existence at the William Ellis school under Fairgrieve who taught there for some years until he was elected a lecturer at the London Day Training College, later to become the Institute of Education of London University. His plans for a specially built geography room were executed by his successor, Leonard Brooks in 1914.

In 1911 Douglas Freshfield, feeling that the need for infant care of the Association was over, resigned his presidency and accepted a vice-presidency. Presidents since then have been appointed for one year each, with, when necessary, special wartime arrangements. The list of presidents is published on p. 265 of this anniversary volume.

The expansion of the Association was by now temporarily slowing down. A few new branches were formed and a few more university courses came into existence, notably at Nottingham under Professor Swinnerton (Geology), always helpful and sympathetic to the geographers, and at Exeter where Principal Clayden published his charming book on Devonshire Scenery. Armstrong College, Newcastle appointed Mr. R. Wilson as lecturer in geography. Then came the war of 1914-18 and the deaths of Professor and Mrs. Herbertson in the summer of 1915. Professor Herbertson had just returned from a short stay at Aberystwyth which gave the one who was to succeed him in the Association, but was as yet quite unaware of any such possibility,

invaluable opportunities of those informal conversations in which Herbertson's learning and wisdom became so luminous. The talks had in part a common ground as Herbertson's posthumous article in the magazine showed. Its title was "Regional Environment, Heredity and Consciousness" and its implications were essentially Darwinian. His successor in the Association had been thinking on Darwinian lines for 20 years too. Dr. Unstead found himself unable to continue his work as Honorary Correspondence Secretary, but remained a member of the Association's Council, as its Committee of Management was by this time called. Miss E. J. Rickard bravely undertook the duties of Honorary Correspondence Secretary and these must have been made much more difficult by the decision of the Council to postpone the election of a new Honorary Secretary. H. O. Becket, Herbertson's senior assistant at Oxford, and P. M. Roxby were elected as joint Honorary Editors of the magazine; the small library of the Association remained at Oxford. In wartime all sorts of difficulties interfered with publication, collection of subscriptions and other details, and the association inevitably declined a little.

H. O. Becket was elected as head of the Oxford School of Geography in 1918, with the title of Reader; Herbertson's professorship had been personal as has already been stated. An endowment given to Liverpool University made possible the creation of a chair of geography for P. M. Roxby in 1916, and, within a few weeks, an endowment given to the University College of Wales, Aberystwyth, permitted the establishment in 1917 of a chair of *geography and anthropology*. H. J. Fleure was thus enabled to hand over his previous zoological responsibilities. The creation of honours schools at Liverpool and Aberystwyth was followed a year later by the establishment of one under Professor Lyde at University College, London. Leeds, Sheffield and Manchester followed some years later.

The expansion of geography as a school and university subject had been faster than had that of the supply of teachers qualified to deal with the renovated subject, and experienced teachers were soon asking for opportunities to refresh their minds at the new sources of geographical understanding provided by the universities. The Gilchrist Trustees generously met this situation by offering for several years from 1912 onwards an annual Gilchrist scholarship to a school teacher of geography to make possible a year's study at a university. This and summer schools were important factors in the improvement of the teaching of the subject.

Whatever criticisms geographers might make concerning the attitude of government departments, the Ordnance Survey has been a most valuable coadjutor of the teachers and the Association. From the early years of the century it had devised schemes for supplying quantities of Ordnance maps of a school district to a public authority school in the area at a cheap rate. This virtual alliance between the Ordnance Survey and the Association was to develop later on to the great gain of geographical education and of the Association; one

hopes that it was also of value to the Ordnance Survey department, directors of which have said that they thought it had contributed to make the British public more map-minded. How much of all this was related to the spread of motors and the consequent revival of the road is an open question. At any rate, the Association's efforts had some share in this development which also intensified the *local study* side of geography. The Association, closely allied with Patrick Geddes, held conferences during the 1914-18 war on "Regional Surveys" with accompanying exhibitions of maps, in London, Ludlow and Newbury (Berks.). An intelligent lay visitor was heard to say at Newbury that the maps showed a lot about how "ordinary" folk lived, worked and even how they thought, differently in many different yet "ordinary" places.

It should be added here that Regional Surveys by geographers owed a large debt to the initiative of the British Association for the Advancement of Science, which had long encouraged local groups to produce a local volume for its various annual meetings. One may mention specially the fine study of the Birmingham district produced for the meetings in that city in 1912. It is hoped, and thought, that the development of geographical study and teaching has subsequently contributed to the fine quality of many of these volumes. As this is being written, the issue of the book on Northern Ireland prepared for the 1952 meeting at Belfast marks a great achievement.

Thus, in spite of war difficulties and of Herbertson's death, the Association kept up and even expanded its work and much thanks should be given to Miss Rickard for her devotion.

Early in 1917 the Association's Council invited H. J. Fleure to meet it in London with a view to his appointment as Honorary Secretary. He accepted and began a transfer of office arrangements to Aberystwyth. Fortunately for the Association, Miss Rachel Mary Fleming had come to a geography summer school at Aberystwyth. She was a semi-invalid who had overstrained her strength in social work at a school in the Birmingham slums; she faced hardship to take up the day-to-day work of the Association, in return for, at first, the merest pittance, which was all that was available because the value of money had fallen and the subscriptions to the Association were in any case often in arrear because of war difficulties. Miss Fleming had a knowledge of classical languages and learned Russian, she also used French and German and was well read in history; but above all she had unquenchable enthusiasm and initiative. She served the Association with the inadequate title of Chief Clerk from 1917 to 1930, the period during which the head office was at Aberystwyth.

1918 was the heyday of Wilsonism. The American president and the League of Nations were the golden dream of that year's end, and in educational circles thought was bestirring itself in the direction of teaching for international understanding and goodwill. The Geographical Association found opportunities increased in many ways.

With activities expanding, the inconvenience of having the office and the editorial work separated by nearly 200 miles became obvious, and the Honorary Secretary became also Honorary Editor with Professor Roxby as Honorary Associate Editor. Mr. H. O. Beckit, elected in 1918 as head of the School of Geography at Oxford with the title of Reader, retained for a few years the Honorary Librarianship of the Association.

In 1918 the Board (later Ministry) of Education instituted schemes of grant-earning advanced courses in secondary schools. They might be in any one of three groups: (a) Classics, (b) Modern Studies including two foreign languages (Latin might be one) and English History and

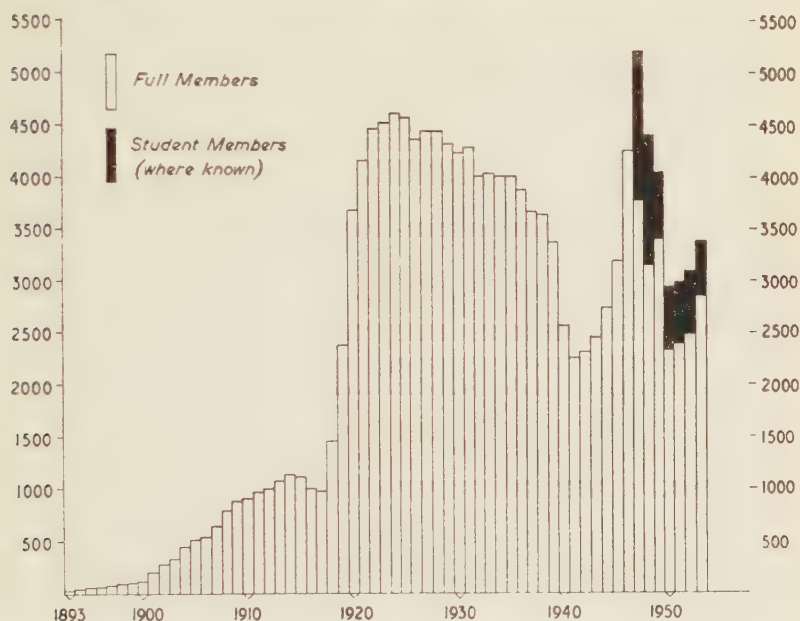


Fig. 2.—The membership of The Geographical Association, 1893–1953.

NOTE.—Some of the new members in each year fell away again quickly.

Literature, (c) Mathematics and Science. Geography did not seem to qualify for an important place in any one of these groups, but might be accessory in all. The then chief Inspector of secondary schools, a distinguished advocate of the mathematical discipline, was averse from modifying the groups though ready to consider a few special cases outside them. Mr. W. H. Barker's course gathering around geography was in fact recognised for Leytonstone, but treatment of a central subject like geography as something exceptional was an unsatisfactory arrangement. After much correspondence the Chief Inspector agreed to meet a deputation which the Association appointed and which included several teachers. Sir Charles P. Lucas with his

courteous persistence and Professor Myres with his brilliance in argument contributed to a notable victory, and it was agreed that geography might be approved as a main subject in any of the Board's groups.

An informal recognition of geography followed soon afterwards. A Committee on Classics had been appointed because the number of Classical schemes offered under Group (a) was small. This Committee invited the Association to send a deputation to discuss "Geography and the Classics." Professor Myres and the Honorary Secretary in this way appeared before a brilliant company including Lord Crewe, A. N. Whitehead, Gilbert Murray, George Adam Smith, Rhys Roberts, and other famous scholars. The occasion was made memorable by the extempore speech in which George Adam Smith expounded the case for geography with his splendid eloquence. Unfortunately he could not be induced to repeat the effort to a dictaphone or a typist with a view to publication; it would not ring true, he said. There was little result from the committee's efforts, and classics have become a minority subject. The matter of recognition of geography was urgent as the higher certificate examinations, for Form VI pupils, were being organised as a basis of scholarship awards and entry to honours courses in universities. It was therefore important that geography should have an adequate place in form VI work and in the examinations. Our subject soon attracted considerable numbers, partly as a reaction against the excessive specialism developing in some other subjects. Geography had its links with science and with history; it was in science and in arts at the same time. The examining authority in Wales showed valuable enterprise in arranging a *viva voce* and practical examination in geography conducted by the chief and deputy examiner at schools offering candidates for the higher school certificate. The ensuing contacts strengthened the subject on both school and university sides. Durham University Examinations Board inaugurated a somewhat similar policy later on. Special mention should be made here of Mr. C. C. Carter's work at Marlborough. Asked by Dr. (later Sir) Cyril Norwood to arrange a geography course for boys not proceeding to the universities, he made this teaching so vital and so popular that Dr. Norwood soon sent all the boys in the school to the Carter class.

Recognition of geography and its growth as a school subject made summer schools for teachers and local branches of the Association multiply; the latter were often dependent on some local enthusiast who might move elsewhere or become absorbed in some other effort, so the number of branches fluctuated, sometimes rising to about 70, rarely falling much below 50 except in the war of 1939-45, when air raids caused disorganisation far and wide.

Another new development was the need for reference books. The Association's library had to be built up, and, in 1922, it was transferred to Aberystwyth. A watch was kept for notices of forthcoming books and gradually review-copies came in and

reviews were written, usually promptly, by a voluntary band of members who gave the books to the Association's Library. Loans by post often reached 30 per week. Gifts from members enriched the library especially with foreign books. In 1925 the Carnegie United Kingdom Trust granted the Library £1,000 to make up important series such as that of the Victoria County Histories and long runs of journals. In all this development Miss Fleming's initiative and enterprise counted for a great deal.

Because recognition of the subject had to be the main aim in the decade of 1920-30, public men were often invited to take the presidency, and several gave devoted service. Two, whose work for us continued, over many years, are Sir John Russell and Sir John Myres, both still at work as this is being written.

In the press of work mistakes in policy and in action were made and were acknowledged and regretted, and some efforts were misjudged by outside critics, but a loyal core-membership cheered the officers by their strong support. On more than one occasion Sir John Myres stepped in, of his own accord, and proved a bonny fighter usually doing battle right inside the opponent's camp.

Two valuable efforts had to be given up. Arrangements with publishers to issue books or supplements embodying research began well and at least three books³ were sold right out. But valued and loyal workers for the Association induced the publisher to take up books which, whatever their scientific value, could sell only a few copies. The other effort was the organisation of educational tours and visits for teachers; and a standing committee of the Association with Mr. E. E. Lupton of Bradford as its devoted chairman carried on successfully in spite of growing administrative difficulties until it seemed probable that the Inland Revenue would consider these tours as a business, for taxation purposes, and so might remove the Association from the tax-free list. This activity was given up with great regret and much gratitude to Mr. Lupton for his work. It is of great importance that teachers of geography should keep their minds fresh and open through travel and study visits, and it is to be hoped that the Association may yet be able to help to organise this type of work. Since about 1920 an effort of this kind has been maintained through the arrangement of Spring Conferences of the Association in centres other than London, the Conference making excursions a major part of its programme.

One of the first duties of the Association after 1918 was to organise a memorial to Professor Herbertson. This has taken the form of a Herbertson Memorial Lecture and the endowment meets expenses of the lecture and of printing it in *Geography*. A list of the lecturers and their lecture titles is printed on p. 266; as many as possible have been Herbertson's old pupils at Oxford.

³ *The Historical Geography of the Wealden Iron Industry*, by Miss M. C. Delany; *The Evolution of Climate*, by C. E. P. Brooks, and *The English Village*, by H. J. E. Peake.

In 1926 it was decided to change the magazine's name from *The Geographical Teacher* to *Geography*, and, about two years later, *Geography* became a quarterly journal. Mr. J. Fairgrieve generously offered a guarantee to meet any loss during the transition period. Fortunately this guarantee was not called up as the finance of the venture was reasonably successful. Publishers who advertised in the magazine evidently appreciated the change.

In efforts for creation of professorships the Association and its coadjutors had little success in the period 1918-29. In 1923 Sir H. J. Mackinder was given the professorial title and on his retirement at the age limit in 1925 it was continued for his successor, Professor Ll. Rodwell Jones. In 1922, Birkbeck College gave the professorial title to Dr. J. F. Unstead and he held it until 1930 when he was succeeded on retirement by Miss Eva G. R. Taylor. In 1928, Professor Lyde retired and was succeeded at University College, London, by Professor C. B. Fawcett.

In 1930 the University of Manchester decided to create a chair of geography, and this step was quickly followed by creation of chairs at Edinburgh, Cambridge, Oxford, Sheffield and Bristol. Sometime later there followed chairs at Leeds, Newcastle, Exeter, Reading and Belfast. A personal professorship had been held by Professor O. H. T. Rishbeth for a few years at Southampton but ceased to exist after his retirement. Southampton at that time appointed a certain number of heads of departments as professors on a basis of seniority of service. More recent additions, since 1945, have been chairs at Nottingham, Birmingham, Glasgow, Aberdeen and King's College and Bedford College in the University of London. There is thus now a Professor in almost all centres of higher education, but the wide scope of the subject and the need to combine so many points of view suggest that we should have large staffs on both physical and humanist sides, or, some think, specialists on the various major regions of the world. The latter attitude is probably more consistent with the idea of the unity of our subject, whereas the former would rather tend to split it and so diminish its educational value.

The year 1930 brought great changes in the Association. The Honorary Secretary was elected Professor at Manchester University and Dr. Spurley Hey, Chief Education Officer of the city, offered the Association's Office and Library free accommodation and services at the High School of Commerce. It was decided to accept this offer, and the removal from Aberystwyth was carried through with regret relieved by hopeful anticipation. Miss Fleming stayed at Aberystwyth for a time and then became librarian of the Royal Anthropological Institute, London. Unfortunately she fell into bad health soon afterwards and had to retire. A few years later her services to the advancement of knowledge and education were to some extent recognised by the awards of the degree of *Magister in Scientia, honoris causa*, from the University of Wales, and of a Civil List

Pension. It is hoped that she derives some satisfaction from the continued prosperity of the Association she did so much to develop. Her successor in the work of the Association was Miss M. E. Owen, who had been Miss Fleming's assistant for some years at Aberystwyth. Miss Owen brought to the work an unflagging devotion and a keen business sense, illuminated by a strong appreciation of the library which she sought to increase by keeping a constant watch for review copies of books and journals. She developed an almost unique skill in all matters relating to proof correction and publishing technique. Several publications of the Association were so organised under her direction, as to add to their educational success a measure of financial success in that there was, at the end, more often than not, a moderate credit balance. The printing of the magazine and other publications was transferred to the firm of Percy Brothers, Manchester, and it is a pleasure to acknowledge the personal interest and help for many years of Mr. Knowles, a member of the firm.

The decade 1930-40 brought new problems to the Association. Reorganisation of primary education was proceeding with the development of road transport. In several areas primary schools which had formerly dealt with pupils up to 14 years of age were made into junior schools for pupils only to 11; the later years of education were to be carried through at central schools. This meant that many primary teachers became less specialised in the matter of subjects. In that decade also the decline of the birth rate which had begun soon after 1921 kept the number of teachers from increasing as it had previously done. These factors tended to reduce membership of associations such as ours. Furthermore it became increasingly clear that the League of Nations was doomed, and preparation for war had to increase, thus limiting enthusiasm for international understanding. Membership of the Association declined to 3,646 on the eve of war in 1939, but the inner membership, of those who paid an additional subscription for library borrowing, kept near 900 until war loomed near and attention was inevitably focussed on the crisis.

The policy of development of the library was nevertheless vigorously pursued, as is shown by the rise in the number of books, apart from runs of journals, to 7,800, including a much increased collection of books of reference on regions of France, Germany, etc. The borrowings from the library also increased and the posting and repairing of lantern slides became an ever more difficult problem. A new library catalogue and catalogue sheets of sets of lantern slides were issued and widely used. Mr. W. Shercliff, a Manchester member, generously gave great help by himself binding and repairing many books.

The Association felt itself strong enough during the decade 1930-40 to choose presidents belonging to its inner circle from time to time; and Messrs. B. B. Dickinson, Hugh Robert Mill, Percy M. Roxby, James Fairgrieve, and C. C. Carter held this office. Two other good friends, too busy with public affairs to belong to the inner circle of workers for the Association, were elected President; they were Lord

Meston and Sir Josiah (later Lord) Stamp. Their continued help on several matters is gratefully acknowledged. The Honorary Treasurership of the Association, held for many years after Mr. Masterman's resignation by Mr. E. F. Elton, was taken, after Mr. Elton's death, by Sir H. G. Lyons, then Director of the Science Museum, South Kensington. When Sir Henry Lyons became Honorary Treasurer of the Royal Society he had to retire from our Council, and Sir William Himbury, the Chief Officer of the British Cotton Growing Association took his place.

The growth of the library was helped through the acceptance of the Honorary Librarianship by Mr. T. C. Warrington on his retirement from the headship of Leek Grammar School. Mr Warrington thenceforth gave much time to the arrangement of books, the answering of many queries, the selection of reviewers and so on. The filling of our shelves with annual volumes of journals made it necessary to discard books clearly known to be of little value; but the consequent diminution of the books total in 1939 was a small one. The development of the library, almost entirely after 1922, had accumulated very little ephemeral matter. The library, being in the High School of Commerce, had often to be used for the school's evening classes; this was apt to cause disarrangement and sometimes loss of books.

Mr. Fairgrieve had long ago pioneered in the detailed mapping of land use and, later, Mr. E. E. Field, of the Association's Northampton Branch, was encouraged by Mr. J. L. Holland, Chief Education Officer for that county and a long-standing member of our Council and Executive Committee, to carry out a detailed survey in the county. The work was of such quality that the Ordnance Survey published the resulting map. The Association thereupon faced the problem of extending the mapping of land use over the country as a whole. Mr. Field did not feel able to give time to the inevitably heavy organising work involved, and the Association's Council appointed a Standing Committee for this purpose under the Chairmanship of Professor L. Dudley Stamp. It soon became evident that finance and office staff on a considerable scale were needed and the now famous Land Utilisation Survey became an independent body and was carried to its remarkable completion by Professor Stamp's enterprise, knowledge and skill. Its history after what may be called the cradle stage has lain outside the Association which has watched the process with pride and a desire to help. Mr. Fairgrieve's many reviews of its memoirs have been a feature in our journal.

The multiplication of university staffs in geography led to another major development. Standing Committees of Section E of the British Association for the Advancement of Science and of the Geographical Association had for some years given university teachers of our subject opportunities to meet. But, by 1933, the Institute of British Geographers came into existence with Professor C. B. Fawcett as its first president. This body organised thenceforth meetings of

university staffs and the publication of research, maintaining a close and friendly link with the Association.

A committee of teachers of geography in what are known as "The Public and Preparatory Schools" has come into close relation with the Association and now functions as one of its standing committees alongside our old established section for Geography in Secondary Schools. Sections for Geography in Primary Schools on the one hand and in Teacher Training Colleges and in University Departments of Education on the other have also done many years of important work. The publications of these Sections under the auspices of the Association's representatives have helped other organisations in the preparation of geographical sections of various general handbooks for teachers. The work of the Secondary Schools Section has been outstanding, and Mr. C. B. Thurston's devotion as chairman of this section has helped the cause of geographical education very greatly.

Thanks largely to Mr. T. C. Warrington's initiative and to the organisation of a map-show at an annual conference of the Association, a plebiscite of teachers chose four 1-inch ordnance maps—the Cairngorms, Wenlock and the Wrekin, South Welsh Valleys and a part of the Sussex Downs. The Ordnance Survey made a generous arrangement to supply these in large quantities to the Association for distribution to schools. The special edition was fully coloured and the maps of the Salopian and Sussex areas were supplied in duplicate, one copy with full detail and one with water and contours only. Several thousand sets have by now (1953) been sold to schools. Mr. Warrington further organised and published for the Association a set of 32 photographs of scenery shown on these maps and four transparencies were published giving outlines of geological formations on the four maps for use as guides in map-interpretation. Sheets of explanation were typed in multiple for distribution with the maps.

Mr. Fairgrieve has given special attention for many years to visual aids for the teaching of geography and this has involved viewing many films for criticism and much discussion of detail with film organisations. Broadcasts on geographical topics to schools have also occupied much attention and caused a good deal of diversity of opinion, as is appropriate to an effort still in an experimental stage.

The growth of road transport has made possible the development of youth hostels and these have increased the possibilities of school journeys and study visits. These activities concern many subjects besides geography and the Association has been anxious to co-operate with the School Journeys Association as well as, later on, with the Council for the Promotion of Field Studies in which an important part is played by Professor S. W. Wooldridge, President-elect of our Association for 1954 and long an active member of our Council and Executive.

Efforts to give more actuality to geographical work led to a scheme whereby schools "adopt" ships and correspond with their Captains. This scheme, fostered by our 1951 President, Mr. L.

Brooks, and by Mr. L. S. Suggate, a member of our Council and Executive and our Secondary Schools Section, has won powerful support from the great shipping companies which help the Ship Adoption Society. Our Association has throughout sought to further this important effort.

The Association has also maintained friendly relations with the Le Play Society under the directorship of Miss M. Tatton, especially in connection with its organisation of study-visits to many parts of Europe. The Society was founded by Sir Patrick Geddes and its subsequent presidents have been Sir H. J. Mackinder, Lord Meston and Sir John Russell, all closely linked with our Association. Members of the Association have led many of the study-visits to Europe and to districts in Britain.

The decade before the 1939-45 war thus witnessed much extension of activity in geographical education and the emergence of interesting new organisations. The Association itself was busy consolidating its work and co-operating with these newer efforts. It was ready for further advance when the shadow of war fell in 1939. The ensuing disorganisation of education was far deeper than that caused by the war of 1914-18, because air raids had to be followed by evacuation from many cities and by the calling up of many teachers for special duties. The very great decrease in membership of the Association from 1939 to 1940 and the further decrease in 1941 are the result of these disasters. The Association tried to hold annual meetings and to maintain its journal in spite of all the difficulties. In an air raid on Manchester, December, 1940, the High School of Commerce, containing our Library and Office, was saved from an immense fire only by the courage and devotion of a caretaker, Mr. Sim, who brought the racing flames to a halt by keeping a hose at work for hours, while he was supposed to be away from duty.

At the 1942 annual meeting held at Exeter in the spring, Mr. Warrington was asked to accept the presidency in recognition of his long and valuable services. At the annual meeting of 1943, held in the summer at Cambridge, he gave an address appropriate to the jubilee year though no celebration could be carried out in war time. A portion of it is printed in this anniversary volume.

In 1944 the Honorary Secretary retired from the professorship at Manchester University, two years beyond the normal age limit because war conditions made replacement difficult. He went to U.S.A. for 1944-45 and Mr. T. C. Warrington, with Dr. Margaret Davies and Mr. N. V. Scarfe, maintained the journal and other activities as far as possible. Miss Owen resigned her position as head of the office to everyone's regret though all concerned felt deeply grateful to her and knew that a secretaryship at the Plant Breeding Institute at Aberystwyth would give her greater opportunities and use her bilingual capacities as well as place her among her own people.

The post-war developments in adolescent education brought incidental problems to the Association. The Education Department

of the City of Manchester had given us free hospitality in the High School of Commerce from 1930 onwards and in many details had shown its active interest and its generosity. The post-war growth of evening classes made it very difficult to allow us the exclusive use of some of the best accommodation in the building. The use of our library for evening classes brought difficulties for the administration of the school and also for the Association, and efforts were made to find alternative accommodation in Manchester, London or elsewhere. At the same time it was becoming clear that the Honorary Secretary should resign on grounds of age and because he had gone to live in London. In 1947 that resignation took effect and Dr. Alice Garnett accepted the Honorary Secretaryship with Professor D. L. Linton as Honorary Editor.

With characteristic enterprise the new honorary officers induced the Corporation of Sheffield to give us accommodation in a portion of their Park Branch Library, where our library and office have exclusive use of good premises : so in April, 1950, the Association removed, for the third time. In 1936 an attempt had been made to start a Jubilee Fund with a view to a celebration in 1943 and the foundation of something appropriately commemorative and useful. The Fund has attained a figure of £929, but celebration in 1943 was quite out of the question. The fund was kept intact to meet expenses of removal, the likelihood of which was generally foreseen. Thanks to the new officers, the removal to Sheffield was paid for without touching this fund, which therefore remains a liquid asset of the Association, a part of our invested capital which now totals about £5,000 and thus allows the Executive to plan without too much petty anxiety.

The removal to Sheffield brought with it the resignation of Mrs. C. D. Mann who had been our Chief Clerk at Manchester since Miss Owen's retirement in 1944, and who therefore had had to meet all the problems of post-war adjustments in a difficult time with the Honorary Secretary far away and new problems arising in many directions. The Association is grateful to her and her staff for their work during a difficult transition and to the devotion with which an ex-president, Mr. Warrington, strove to help and advise. He practically became Honorary Correspondence Secretary and shouldered many responsibilities especially after Dr. Margaret Davies moved away from Manchester, following her husband's appointment as Secretary of the University of Wales and Director of its University Press.

A Library Catalogue compiled and published soon after 1930 had gone out of print and efforts were made, and are still in progress, to prepare a new edition. They have been delayed by the removal and consequent adjustment of shelving, and a revision of the classification, which had been purely empirical, was felt to be necessary to help both members using the catalogue and clerks searching the shelves to find books easily and quickly. The borrowings are mainly postal and this makes the need for an effective catalogue rather urgent. During

the period of waiting for the new edition the additions to the library are known as including practically all the books reviewed in *Geography*.

With the establishment of the Association under Dr. Alice Garnett and Professor Linton at Sheffield, Miss Marguerita Oughton, an honours graduate in Geography of the University of Sheffield, took up the office of Assistant Secretary with a staff of two assistants. Under this new and effective organisation the Association began to recover from the severe slump which the war had caused. Branches which had had to close down because of war removals and air raids gradually resumed work, but the fall in the value of money has hampered both branches and the Association's office, and recovery has been slow.⁴ The educated public has been in no such mood of enthusiasm for education and international understanding as was characteristic of the Wilsonian phase after the 1914-18 war. After 1945 we have had a period of grim rationing and of sharp criticism of dreams of any kind. Nevertheless, the Association has gone forward and has inaugurated a scheme of international conferences of teachers of geography. The first was held at Crewe Hall, University of Sheffield, in July and August, 1951, and was attended by teachers from Germany, Holland, Belgium, Denmark, Norway, Sweden, Brazil, Australia, Canada, Egypt, Gold Coast, Great Britain, Northern Rhodesia, Sierra Leone, South Africa, Tanganyika, Thailand and Uganda.

These conferences are made as simple and informal as possible so as to ensure freedom and to keep expense to a minimum in order that no country may be deterred from acting as host. At Sheffield, a temporary exhibition of books from various countries showed how the subject was treated in environments of different traditions, and Dr. Garnett, with the help of the Department of Geography of the University, arranged for visitors from abroad to see by excursion a transect of Northern England from the Irish Sea at the Mersey Estuary to the North Sea at Grimsby. It is hoped that this new series of conferences will be continued by one proposed to be held in Holland in 1954.

Another new effort of the Association has met organisational difficulties in spite of its success in other ways. This has been the arrangement of occasional spring conferences in non-collegiate centres where the locality is of special geographical interest. Falmouth in Cornwall, and Tenby in Pembrokeshire, were both the seats of enjoyable and profitable conferences, but the absence of a sufficiently strong and numerous local group to organise the accommodation has brought much responsibility and anxiety for the Honorary Secretary. This valuable idea will need to be further developed on the administrative side.

Summer Schools of Geography held between 1910 and 1924 or so were a great help to the Association though not directly organised by it. The post-1945 reorganisation of education has made the need for summer schools more urgent than ever. Rightly or wrongly secondary

⁴ The distribution of branches in 1953 is shown in the map on p. 274.

schools have been arranged as either "grammar" schools or "modern" schools under many authorities. The latter have to a considerable extent non-specialist teachers who are encouraged to teach from things seen, heard and handled, with books as accompaniments rather than as fundamentals. The aim is to give an education thought to be suited to the less bookish pupils under a scheme which will keep all pupils at school until the age of 15, an extension to 16 being hoped for by many educational enthusiasts. Now, one of the main educational efforts of geographers is exactly that of studying our neighbourhood, of learning from things seen, of realising the interest behind the supposedly commonplace phenomena and objects around us.

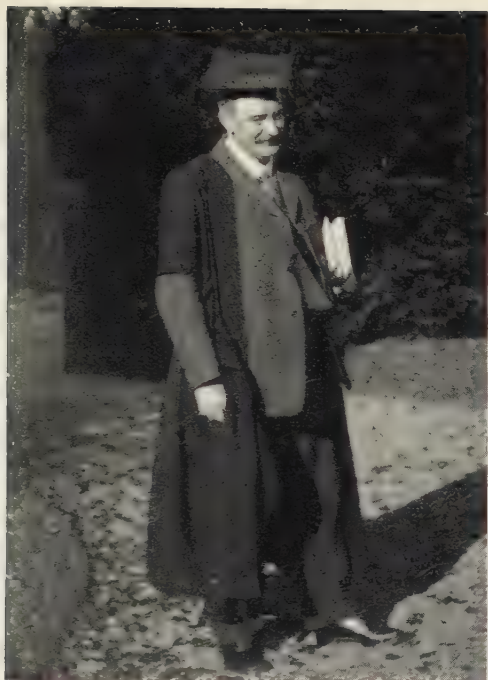
At the earlier summer schools Sir Patrick Geddes, himself the pioneer of vacation refreshers for teachers and other professional workers, preached continually the idea of local studies under the title of Regional Surveys; and our Association issued, in articles in our magazine and in booklet form, guides to study and research in this field. Recently a freshly revised *Local Studies* has been issued from our central office. Work of this kind not only offers opportunities in the education of the so-called "less-bookish pupils" of the "modern" schools in the classification developed since 1944, it has other important possibilities. The amount of more or less repetitive work a teacher has to face in a long series of years makes a stimulant desirable to keep the mind fresh and active. The study of our immediate surroundings gives special opportunities in this direction. Many things that have been thought just ordinary are seen to be of special interest and the accumulation of knowledge and still more of understanding can go on for a lifetime. It has also values far other than those of teaching opportunities and of mental activity for the teacher. Already members of branches of the Association have given important contributions to the often very valuable books issued by the British Association for the Advancement of Science in connection with the annual visits to different centres. And help has also been given to volumes issued in connection with Town and Country Planning. One may venture to hope that books on localities will multiply until the whole country is covered, but it is much to be desired that efforts in this field should not be constrained into a series on set lines with the country divided out into areas whether based on physical features or on map sheets. Spontaneity and variety are all-important here. And books are not the only productions to be encouraged. A great deal could be done to promote improved citizenship if we could have permanent exhibitions in municipal and other buildings showing maps and other exhibits of the evolution of regional life. It is most appropriate that the Outlook Tower, Edinburgh, one of the many and very diverse products of Sir Patrick Geddes' fertile imagination, should have such an exhibition still growing from year to year as we approach the centenary (1954) of Geddes' birth.

It is a pleasure to express the Association's gratitude to the Royal Geographical Society for much help, especially since 1945, renewing the

close co-operation which existed in our early years. Our thanks are due to Dr. L. P. Kirwan, Director and Secretary of the Society, to Mr. L. Brooks, until recently the Honorary Secretary and now Honorary Treasurer, to Dr. E. W. H. Briault as Mr. Brooks' successor and to other officers and friends.

Our subject has had a long struggle for recognition externally as well as for cohesion and progress internally. Hardly any sixth form teaching of geography was done before the 1914-18 war. Herbertson's pioneering in our Association took effect only slowly. The political ideals of Victorian and Edwardian times favoured political history rather than geography, the record of power changes rather than the evolution of human life. And both history and geography suffered in different ways, the first from faulty emphasis, the second from sheer neglect. Honours schools of geography under university professors, scholarships to universities, a proper place in the examination systems for schools, in Workers' Educational Association classes and other forms of educational arrangements for adults and adolescents are gradually being achieved.

The need for maintaining internal cohesion is greater than ever now that the number of teachers and students of the subject has grown and the university departments in particular need to promote the advancement of learning. Geography has been from antiquity the mother of the Sciences and her offspring have attained independence in all directions. Still, in our day, it is possible for geography to encourage the growth of a part of itself to take its place alongside of geology, and another part alongside of history. In either case a dignified specialism is possible, but hardly an instrument of general education. For that we need to remember and build upon the Darwinian fundamental principle that living things and their environments together form a unity and that if we separate life and environment, and contrast influence of environment on man with man's very doubtful mastery over nature, we are in danger of losing the ideal of educational holism and the fullness of truth.



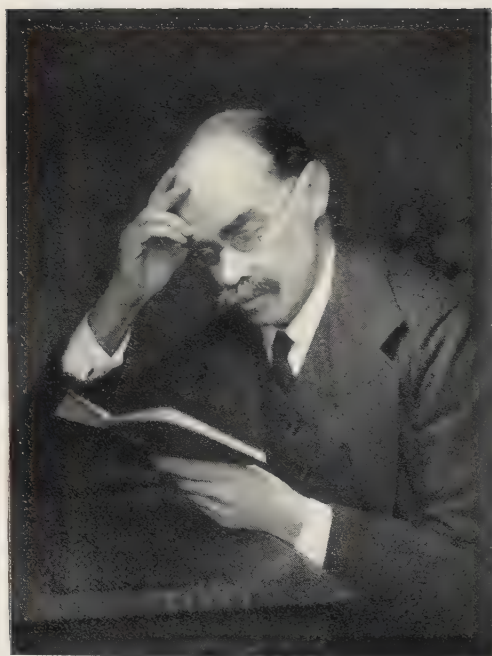
B. B. Dickinson.
 Founder member.
 Honorary Secretary
 1893-1900.
 President 1930.

Sir
 Halford J. Mackinder.
 Founder member.
 Member of Committee
 1904-1908.
 Chairman of Committee
 1909-1913.
 Chairman of Council
 1913-1946.
 President 1916.





A. J. Herbertson.
Honorary Secretary
1900-1915.



H. R. Mill.
Member of Committee
1894-1901.
President 1932.



J. Fairgrieve,
Member of Committee
1909-1913.
Member of Council
1913-1953.
Chairman of Council
1947-1948.
President 1935.



H. J. Fleure,
Honorary Secretary
1917-1947.
Chairman of Council
1948
President 1948.



Library of the Geographical Association in Sheffield, 1953.

OFFICERS OF THE GEOGRAPHICAL ASSOCIATION.

PRESIDENT

(The office was created in 1897)

1897-1911	Douglas Freshfield.	1928	Dr. Vaughan Cornish.
1912	G. R. Parkin.	1929	Sir H. G. Lyons.
1913	Professor E. J. Garwood.	1930	B. B. Dickinson.
1914	Dr. (Sir) J. Scott Keltie.	1931	Sir Leslie Mackenzie.
1915	Hilaire Belloc.	1932	Dr. H. R. Mill.
1916	(Sir) Halford J. Mackinder.	1933	Professor P. M. Roxby.
1917	Sir T. H. Holdich.	1934	Lord Meston.
1918	Sir W. M. Ramsay.	1935	James Fairgrieve.
1919	Professor Grenville A. J. Cole.	1936	Sir Josiah (Lord) Stamp.
1920	Sir Charles P. Lucas.	1937	Professor (Sir) Patrick Abercrombie.
1921	Professor Gilbert Murray.	1938	Sir Thomas H. Holland.
1922	Lord Robert (Viscount) Cecil.	1939-1941	C. C. Carter.
1923	Sir John Russell.	1942-1945	T. C. Warrington.
1924	Sir Richard A. Gregory (Bart.)	1946	Sir Cyril Norwood.
1925	Professor (Sir) John L. Myres.	1947	Sir Alexander Carr-Saunders.
1926	Rt. Hon. W. A. Ormsby Gore (Lord Harlech).	1948	Professor H. J. Fleure.
1927	Sir Charles F. Close (later Arden-Close).	1949	Sir Harry Lindsay.
		1950	Professor L. Dudley Stamp.
		1951	Leonard Brooks.
		1952	Professor F. Debenham.
		1953	Dr. O. J. R. Howarth.

HONORARY SECRETARY and HONORARY EDITOR

1893	Honorary Secretary :	B. B. Dickinson,
	with the assistance of :	J. S. Masterman (Dec., 1894-1900).
1900	Honorary Secretary :	} A. J. Herbertson.
	Honorary Editor (from 1901) :	
	with the assistance of :	
		J. F. Unstead (1906-1914), and Miss E. J. Rickard (1914-1915).
1915	Acting Honorary Secretary :	Miss E. J. Rickard.
	Honorary Editors :	H. O. Beckit and P. M. Roxby (1915-1918).
1917	Honorary Secretary :	H. J. Fleure.
	Honorary Correspondence Secretary :	Miss E. J. Rickard (1917-1919).
1919	Honorary Secretary :	} Prof. H. J. Fleure.
	Honorary Editor :	
	Honorary Associate Editor :	Prof. P. M. Roxby (1919-1933).
1947	Honorary Secretary :	Dr. Alice Garnett.
	Honorary Editor :	Prof. D. L. Linton.

HONORARY TREASURER

1893	C. E. B. Hewitt.
1895	J. S. Masterman.
1907	E. F. Elton.
1926	Sir H. G. Lyons.
1931	Sir W. Himbury.

HERBERTSON MEMORIAL LECTURES

- “The Foundations of Geography in the Twentieth Century”
delivered by M. Franz Schrader at Oxford on November 5th 1918.
Geography, vol. x, 1919–1920, pp. 44–53.
- “The Goal of Commerce”
delivered by Mr. G. G. Chisholm at Cambridge on February 28th 1924. *Geography*, vol. xii, 1923–1924, pp. 333–342.
- “Environment and Cultural Progress among Primitive Peoples”
delivered by Dr. A. C. Haddon at London on October 26th 1927.
Geography, vol. xiv, 1927–1928, pp. 406–416.
- “Geographical Aspects of Administrative Areas”
delivered by Mr. H. J. E. Peake at Edinburgh on May 30th 1930.
Geography, vol. xv, 1930–1931, pp. 531–546.
- “Region and Race”
delivered by Professor J. L. Myres at Oxford on May 22nd 1935.
Geography, vol. xxi, 1936, pp. 18–27.
- “The Relations of Geology and Geography”
delivered by Professor A. G. Ogilvie at Newcastle on November 5th 1937. *Geography*, vol. xxiii, 1938, pp. 75–82.
- “Marginal and Interior Lands of the Old World”
delivered by Professor C. B. Fawcett at Manchester on November 29th 1946. *Geography*, vol. xxxii, 1947, pp. 1–12.
- “Scotland and some Trends in Geography. John Murray, Patrick Geddes, and Andrew Herbertson”
delivered by Professor R. N. Rudmose Brown at Edinburgh on March 5th 1948. *Geography*, vol. xxxiii, 1948, pp. 107–120.
- “The Later Developments in Herbertson’s Thought. A Study in the Application of Darwin’s Ideas”
delivered by Professor H. J. Fleure at Tenby on April 21st 1952.
Geography, vol. xxxvii, 1952, pp. 97–103.

A SURVEY OF THE PRESENT POSITION OF GEOGRAPHY IN SCHOOLS

O. J. R. HOWARTH

THIS survey is frankly a compilation and its author would like at the outset to acknowledge how deeply he is indebted to those devoted teachers of geography who have prepared the reports published by the Association on the teaching of the subject in various types of schools, and have supplemented these by recent inquiries as to the position almost up to the moment. He has also to thank all those who have answered the questionnaires issued to a large number of schools and colleges, and also individual teachers with whom he has been in correspondence. His position is that of a layman attempting to summarize a symposium of scientists: he can only hope, at the best, to present a balanced picture of the material before him. He admits to having freely used or adapted, not always with acknowledgment, the words of the inquiries above referred to.

The second edition of *Geography in the Primary School*, published by the Association in the present year, lays down two fundamental conclusions—the first, “that local geography is indispensable because it alone can provide the basis in experience from which all other geographical work proceeds”; the second, “that life in other lands can best be made real to children by means of vivid, detailed, pictorial presentation of typical small unit areas.” This view of local geography is found to be pretty generally recognised, although syllabuses differ widely in detail, not only in primary but in secondary schools. The study of life in various parts of the British Isles and examples from other parts of the world form the major part of syllabuses generally, but the approach may be by way of natural regions, sample studies, men and their work, or centres of interest. It is not suggested that this variety is in any way undesirable.

The possibilities of early use of Ordnance Survey maps do not appear to be generally recognised in primary schools. Large-scale maps of the locality of the school (six inches and twenty-five inches to the mile) are received by many young children as a revelation: they quickly grasp their use and significance, and once affection for a map is established in a child's mind it remains with him, probably, through life; at any rate, one of the foundation-stones of the geographical structure is firmly laid. It appears that these maps should be made more generally available than they are in primary schools.

On the other hand, film-strip projectors have come rapidly into wide use. A Ministry of Education Survey made in 1947 revealed an almost total absence of these aids; the recent edition of our own report on *Geography in the Primary School* indicates that the position in regard to them has “probably changed considerably since that time,”

and it is gratifying now to be assured that this is so. Most schools borrow film-strips from a central source, but some schools have also small film-strip libraries of their own.

It is not perfectly clear, on the evidence before the compiler, to what extent outdoor work is done during the geography periods in primary schools, but the practice seems to be less usual than might be hoped. "Educational visits with some geographical interest," our inquirers have found, "are organised in some schools, but generally these are found difficult to arrange and are rarely if ever undertaken." This is regrettable. It is well understood how many and varied are the interests which may be aroused in the minds of young children by means of demonstration, or (let us say) the guided collection of experiences, outside the classroom. The difficulty of arranging such incidents in the school timetables is appreciable when the school is small and has only a very few teachers, but even in those conditions difficulty should not be insuperable, and in schools of any considerable size it should disappear. The present writer is acquainted with a rural junior school in west Kent, from which during the summer term in recent years a party of the oldest children have been sent away for eight days in the charge of a teacher. There have been visits to Hampshire and the Isle of Wight. The parents contribute to the cost: additional funds are raised by such entertainments as whist drives, and the Local Education Authority contributes a grant along with its approval. The programmes are meticulously prepared. The aid of a local scientific society has been readily afforded in such matters as the provision of lecturers and escorts. The school is affiliated to the School Journey Association. Such excursions as these cost much time and care in preparation, but their benefits to the children are manifest.

For the rest, our Primary Schools Section Committee reports as follows. "In spite of the rise and spread of social and environmental studies" (a subject to which we must presently revert) "it appears that geography is still taught as geography in most primary schools. Except in isolated cases where some specialization is undertaken geography is taught as one among many subjects by class teachers. Two periods of about thirty minutes per week are in general devoted to geography. A globe forms part of the equipment of nearly all primary schools, and the text books in use, though varying greatly, are for the most part the current productions of the educational publishers. . . . Much use is made of the B.B.C.'s travel talks."

In secondary schools a wide diversity is found in the treatment of geography in respect of time allowed, syllabuses followed, and accommodation provided. In public schools, for instance, every stage is found from those in which it is treated as a principal subject to those few in which it is still untaught. Up to a certain point this diversity in time and syllabuses is not a bad thing: amid those subjects of which both the range and the details are fairly rigidly fixed it is good

PRESENT POSITION OF GEOGRAPHY IN SCHOOLS

that there should be one, such as geography, which allows latitude in respect of these features. Our Committee on Geography in Secondary Modern Schools finds a diversity of syllabuses which "vary from the very best; a closely knit and carefully planned syllabus, well suited to the needs of the pupils in their environment, arousing their interest and satisfying their curiosity, giving training in the essentials of geographical thought, ensuring that at the end of the course the pupils will have an understanding of man in his environment; through the mediocre, which is often a watered down academic course which may be very dull and lifeless; to the worst, which is a series of chapter headings from readers selected by the head teacher or some other person as suitable to fill in that period between playtime and hometime on one afternoon each week." The middle grade in this classification may indeed be dull and lifeless, but it need not be so, and if it be not, it may at least convey to the pupil the urge to know more; and geographers may claim with some justice that there is no school subject which more freely offers that urge. The present writer has been informed of certain schools in which the geography course is specifically adapted to training in world citizenship.

In the public schools up to Middle School (as well as in preparatory schools) two or three periods a week are commonly given to geography; later, there is wider variation. The subject is usually popular: younger pupils, and for that matter plenty of other pupils, like making maps and models and carrying out local surveys and keeping weather records. There is frequently, however, a lack of time for practical work. In the lower forms of public schools the outlines of world geography are usually attempted: this is a dangerous subject to the extent that it becomes so dull if ineffectively presented, but presented it assuredly should be. At the same stage acquaintance is often made with one inch to the mile Ordnance Survey maps. It is stated that in some few public schools an interest in the geography of the Empire and Commonwealth is fostered. The writer looks forward to an opportunity of enlarging on this subject.

In most public schools (our sectional report states) some pupils prepare for the Certificate of Education (Ordinary level) examination, especially that of the Oxford and Cambridge Joint Board, and in some schools a quarter to half the pupils take the geography papers. The more detailed practical, physical and regional work is usually covered in the last year or two of the course. Where a considerable proportion of the pupils prepare for this examination the time given ranges usually from two to four periods a week; where the number of candidates is small, sometimes five or six periods are allowed. The idea that geography as an examination subject is a "soft option" survives, but is slowly dying and were better dead: meanwhile, in schools in which only less able pupils are allowed to take the geography examination the fullest possible allowance of periods is desirable.

From the number of candidates taking the general certificate

examination in the grammar schools it appears that geography now ranks fourth in importance as a subject, after English, French and mathematics. About three-quarters of the candidates in these schools take the Ordinary level papers. Our committee reports a sharp fall in entries since the substitution of the new examination by subjects in place of the previous School Certificate examination in groups: the decline (20 per cent.) has been no greater in geography than in most other subjects and the committee feels that sufficient experience of the new tendencies is not yet available to allow definite conclusions to be reached.

In the higher level examination the numbers of grammar school candidates have increased since the war: in the London examination, for example, the numbers have more than doubled, and one Advanced level candidate in every five takes geography. These figures suggest that geography is now well established in the sixth forms of grammar schools; in many public schools, too, there is now a two-years' sixth form course preparing for Advanced and Scholarship level examinations. The number of pupils taking this course in the public schools has been found to vary from two or three up to thirty, and the periods allowed range from six to twelve. As more scholarships are offered (particularly at Oxford and Cambridge) in which geography is a principal subject, more pupils are attracted to those courses. But apart from any consideration of university training, it is good to learn that geography, as a subject both interesting and broadening to the mind, attracts a growing number of students. The teaching of geography as a non-examination subject is indeed esteemed by some teachers as preferable because it is not then restricted by the trammels of the examination syllabus. This is very well understandable. Our report on secondary modern schools indicates that in those schools in which geography is taken as an examination subject there is a distinct tendency for the subject to be narrowed in scope owing to this need to stick closely to the examination syllabus.

Teaching methods vary widely—too widely still—in all classes of schools. Our report on secondary modern schools shows that the position of geography in any given school depends upon the teacher, and that if the head teacher is a geographer or sympathetically disposed toward the subject, it naturally flourishes best. So in any given locality the interest of the Director of Education or the area inspector counts strongly in favour of the position of geography in that locality. These conditions connote a certain weakness in the status of the subject; but when it is remembered that geography as a leading school subject is of so young a growth there is no reason to fear that such weakness need be permanent.

A school subject recently developed under the title of "social studies" is held, with good reason, to assault the adequate teaching of geography, as well as history and possibly other subjects. It is not difficult to understand the favour with which studies offering a broad superficial outlook may be regarded; but the present writer has

some reason to suppose that the earlier enthusiasm for them does not maintain itself. Our report on grammar school geography states that there are few such schools "in which geography is not provided for as a main subject in the curriculum. Generally two or three periods a week are allocated, with an extra period in the fifth year. . . . This corresponds, generally, with the time allocated to the history teacher. In too many schools, however, the extra periods provided in the fifth or examination year are obtained by dropping the study of either geography or history. Subjects which are naturally complementary become alternatives," and it is pointed out that the association of the two subjects is "very unusual." It is a pity that this should be so, unless geographical aspects are fully recognised in history lessons.

In all types of schools accommodation and equipment for geography teaching appear to vary no less widely than the syllabuses. It is still possible, here and there, to detect the fly-blown wall map of Victorian vintage, than which there is no more depressing ornament to a class-room. The really well equipped geography room seems to be exceptional in public schools, and though most grammar schools have a geography room the crowded condition of such schools militates against adequate accommodation for our subject. The same is no doubt true of modern schools, and the insufficient size and indifferent condition of so many school buildings stand against what may be called the display side of geography teaching. But there seems no reason to doubt that the use of films, epidiascopes and other illustrative aids are fully used where conditions permit. Probably restrictions of time are the main factor in preventing the wider hearing of B.B.C. geography talks in all types of secondary school curricula in which geography has a place of any importance.

Our report on geography in the grammar schools observes a tendency to introduce reality into geography teaching, by which is implied that "geography is becoming something to do as well as something to learn." This tendency reveals itself in the development of outdoor work in all the types of schools. The report on the public schools points out that most of these are boarding schools well placed to carry out field work; that in some of them field-work, including surveying, forms part of the regular curriculum, in others it is included in out-of-school activities. In some schools there are geographical societies, which may, beneficially, include pupils who are not taking geography in class. Lastly, we hear of camps and of parties travelling abroad, even of boys (whose financial positions allow) making vacation journeys under expert guidance far afield into sub-arctic or tropical lands. Such journeys are not necessarily made with geography primarily in view, but even those which are not can be given a geographical background. Apart from journeys, opportunities can be created for contact between pupils at home and correspondents living or travelling overseas. The Ship Adoption Society, for example, supplies such opportunities.

The Training College Section of the Association has provided a

report on the status of geography in the Training Colleges of England and Wales, 1952 (excluding university departments of education). This report is based upon 50 replies to a questionnaire which was issued in November last year to 110 out of the 114 teacher training colleges in the country, the balance of four colleges being concerned only with nursery and infant teachers. The report points out that it may well be that a great number of the colleges (60 in all) which did not answer the questionnaire do not offer geography in their courses. Of the 50 colleges furnishing information 43 have only one geography lecturer, but the remaining 7 have two or three. The ratio of geography lecturers to total staff may be as high as 1 in 8 or as low as 1 in 26 but falls mostly in the middle part of this range. The number of students taking geography per lecturer in the subject ranges from 10 to 80, but in the majority (34) of the colleges is fewer than 40.

All but two of the 50 colleges offer main courses in geography, the two exceptions being colleges that specialise in handicraft, music, art or drama. The amount of time devoted to such main courses varies from 20 hours (or periods) a year to 210, but for most colleges (39) the time allowed is not less than 40 hours a year and does not exceed 120 hours. This is, for almost all colleges, much the same allocation as for other subjects of comparable character. In most training colleges (39) the number of students taking main courses does not exceed 20 but in 8 colleges there are 30 to 50 students.

Subsidiary courses are offered by 25 colleges and these may be taken by as few as 1 or as many as 39 students a year. In addition 28 colleges provide "basic courses" in geography, meaning, generally, short courses for those students not specialising in the subject. These basic courses generally occupy up to 20 hours, but in a few colleges they may be as long as 40 hours.

Four training colleges include degree courses in geography and in any one year there may be altogether 28 students taking such courses and a further 32 taking the third year "supplementary" courses which are offered by four other colleges. All colleges except two provide some instruction in geography teaching method, either in the Education course or in the Geography course, or by special time-table provision.

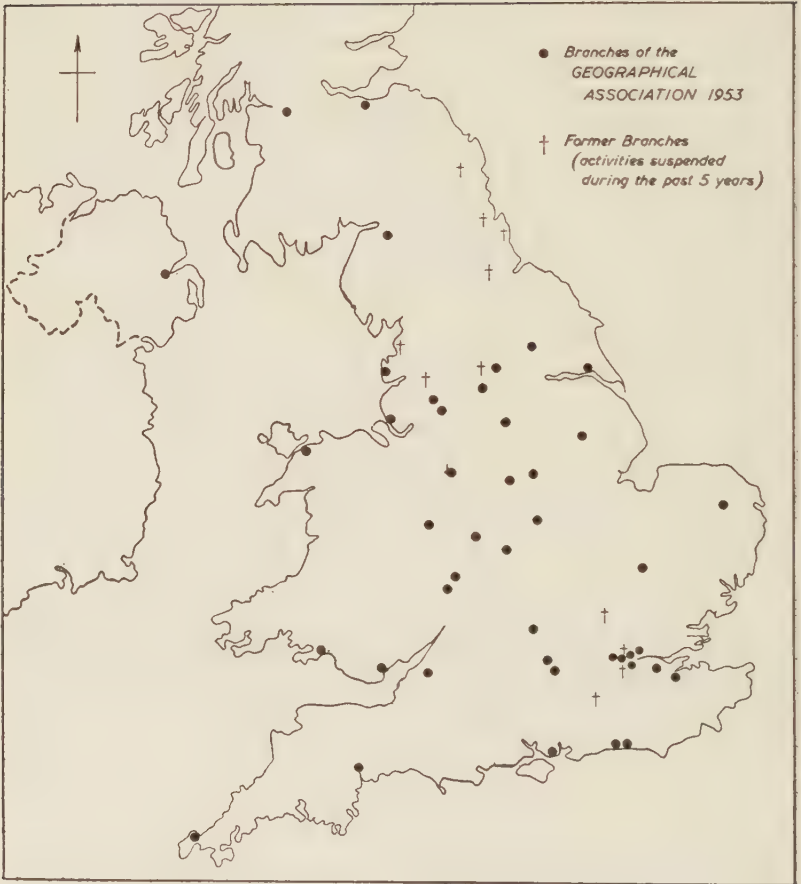
There is naturally a great deal of variety and individual experiment in the matter of syllabuses. This is altogether desirable in view of the very varied possibilities of the localities in which the colleges are situated and of the differing age-groups of the pupils that the students are being trained to teach. Some of the more extreme variation in syllabus are designed to fit particular types of training as in a craft college or a Froebel college, but out of the 45 colleges that provided some details concerning syllabus it is possible to generalise to some extent about 34. In 18 colleges the main headings of the syllabus could be said to be a physical basis, map work and practical, the regional geography of the British Isles and of some other area. In two smaller groups (5 and 3 respectively) the syllabus is much the same but in the

one case there is no regional study other than the British Isles and in the other the British Isles receive no attention and North or South America (or both) is (or are) substituted. In a fourth group (8 colleges) regional geography may be replaced by the detailed study of a selected topic.

Local study is undertaken by 48 of the 50 colleges replying, and more than half of them do some field work in districts outside the immediate locality of the college. It is perhaps worthy of note that in 13 cases field work and excursion expenses are reported as being paid wholly by the local education authority, and partly so in 13 others. In no college was the written examination reported to be the only means of testing achievement. In most cases the written papers are supplemented by examination of practical and field note-books or by special individual studies. In a few colleges written examinations are dispensed with and reliance is put upon special studies, *vivas* and general assessments. In 18 colleges geography forms part of some other course such as Social Studies, Integrated Studies, or Rural Science, and in seven other colleges students may take both Geography and Social Studies.

As to equipment it may be said that all the colleges offering main courses in geography have geography rooms. Thirty of these are regarded by those who use them as adequately equipped, sixteen as being only moderately so, and two as definitely inadequate. Library provision is not quite as favourable, being regarded as adequate in 27 cases, moderate in 12, and definitely inadequate in 9. It may be noted that the sums spent on the geographical section of the library were reported in some cases as being as low as £5 a year and ranged upwards to over £50.

Finally it may be regarded as indicative of the kind of interest training college students have in their subject that 24 colleges have geographical societies that are in the great majority of cases run by the students themselves, and that in two instances the college is the meeting place of a local branch of our Association.



THE BRANCHES OF THE GEOGRAPHICAL ASSOCIATION,
1953. AND THEIR HONORARY SECRETARIES.

BIRMINGHAM

Miss P. A. Nicklin,
16, Middle Park Road,
Selly Oak, Birmingham, 29.

EXETER

Mr. O. S. Larkin,
"Riversmeet,"
Topsham, Devon.

BLACKPOOL

Mrs. M. Mason,
Caradoc,
Grange Road, Blackpool.

GLASGOW

Mr. J. McGruther,
Albert Senior Secondary School,
Springburn, Glasgow, N.1.

BOLTON

Mr. A. G. Pike,
702, Crompton Way,
Astley Bridge, Bolton.

GOLDSMITHS' COLLEGE OLD STUDENTS

Miss L. Chipperfield,
160, Burnt Oak Lane,
Sidcup, Kent.

BRIGHTON

Mr. R. E. Metcalfe,
45, Clifton Road,
Newhaven, Sussex.

HARROW AND WEMBLEY

Mr. A. A. Seymour,
20, Parkfield Gardens,
Headstone Lane, North Harrow.

BRISTOL

Mr. A. M. Graves,
Dept. of Geography,
The University, Bristol, 8.

HUDDERSFIELD AND HALIFAX

Miss D. Bairstow,
40, Bromley Road,
Birkby, Huddersfield.

CAMBRIDGE

Mr. P. Bryan,
109, Hills Road,
Cambridge.

HULL

Mr. A. Hale,
12, Wembley Park Avenue,
Ings Road, Hull.

CARLISLE AND CUMBERLAND

Miss D. H. E. Watson,
Creighton School,
Carlisle.

N. IRELAND

Dr. E. Jones,
Dept. of Geography,
Queen's University, Belfast.

CORNISH GEOGRAPHICAL ASSOCIATION

Mr. J. M. Wilson Main,
8, Pednolver Terrace,
St. Ives, Cornwall.

N.W. KENT

Mr. S. Grindrod,
96, Crowborough Road,
London, S.W.17.

COVENTRY

Mr. D. Erasmus,
c/o Education Dept.,
Council House, Coventry.

LEEDS

Mr. A. J. Gordon,
30, Talbot Grove,
Roundhay, Leeds, 8.

DERBY

Mr. W. O. Butler,
Derby School,
King Street, Derby.

LEICESTER

Mr. R. Millward,
Dept. of Geography,
Leicester University College,
Leicester.

EDINBURGH

Mr. B. Hartop,
13 Hartington Gardens,
Edinburgh, 10.

LINCOLN

Miss E. M. Born,
South Park Girls' High School,
Lincoln.

S.W. ESSEX

Mr. J. A. Evans,
58, Topham Road,
Upper Tooting,
London, S.W.17.

LIVERPOOL

Mr. W. R. A. Ellis,
9, Shrewsbury Road,
Wallasey, Cheshire.

MALVERN GEOGRAPHICAL SOCIETY

(Affiliated)
Miss E. W. Bishop,
21, Barnard's Close,
Malvern.

MANCHESTER

Mr. W. H. Shepherd,
14, Highfield Road,
Timperley, Cheshire.

MEDWAY TOWNS

Miss M. W. Woodward,
38, Larkfield Avenue,
Gillingham, Kent.

E. MIDDLESEX

Miss J. G. Minton,
Fairbourne, Rose Valley,
Brentwood, Essex.

NORFOLK

Mr. P. C. Walton,
2, Waterloo Park Avenue,
Norwich.

NOTTINGHAM

Dr. C. A. M. King,
Dept. of Geography,
The University, Nottingham.

OXFORD

Mr. E. Paget,
School of Geography,
Mansfield Road, Oxford.

PORTSMOUTH AND DISTRICT

Mr. R. L. R. Morgan,
Municipal College,
Portsmouth, Hants.

READING

Mr. P. D. Wood,
Dept. of Geography,
The University, Reading.

SHEFFIELD AND DISTRICT

Mr. R. Cole,
31, Barholm Road,
Sheffield, 10.

SHROPSHIRE

Mr. J. P. Dodd,
Hampton Loade,
Alveley, Bridgnorth.

SLOUGH

Mr. H. E. Sweet,
Brix, 21, Rutland Road,
Maidenhead, Berks.

N. STAFFORDSHIRE

Mr. I. Kidd,
19, Bridle Path, Ash Hall,
Bucknall, Stoke-on-Trent.

SWANSEA AND DISTRICT

Miss M. Price,
143, Gower Road,
Swansea.

N. WALES

Miss M. McCricker,
St. Mary's College,
Bangor, N. Wales.

S. WALES (EAST)

Mr. F. T. Baber,
136, Heath Park Avenue,
Heath, Cardiff.

WESTMINSTER AND CENTRAL LONDON

Miss E. H. Bennetton,
24, Woodberry Way,
London, N.12.

WORCESTER

Mr. A. R. Wheeler,
The Whiteladies,
The Royal Grammar School,
Worcester.

WORTHING

Mr. A. H. Ridout,
92, Brighton Road,
Worthing.

YORK

Mr. R. O. Smith,
St. John's College,
York.

STUDENT BRANCHES

University of London.

Birkbeck College.

King's College and London School
of Economics.

Queen Mary College.

University College.

University College of North Stafford-
shire, Keele Hall, Stoke-on-Trent.

LAND USE SURVEY AS A TRAINING PROJECT

A. J. HUNT*

IN a recent number of this journal Dr. Briault pointed out that local studies are of limited value in the school geography course unless they are fully integrated with studies of other parts of the homeland and of the world¹. He indicated how a well-knit course could be planned by making use of detailed map studies of selected regions as the link between outdoor and classroom activities. Although the problem of selecting suitable areas and topics for such detailed study at different stages in the school course is basically the same for all teachers, freedom of choice is commonly curtailed by limited resources, by lack of variety in the home district and, as far as outdoor activities are concerned, by time-table difficulties. With these considerations in mind the writer proposes to draw attention to land use survey as a type of training exercise offering considerable scope for experiment and one which can be adapted for use in most localities and at virtually any level from the junior school to the university.

Field training in general serves two main purposes : (1) to encourage good habits of observation and thereby to enlarge first-hand experience as an antidote to excessive book-learning ; (2) to give opportunities for acquiring skill in carrying out the purely technical operations connected with map construction and map interpretation. Although specialised techniques necessarily receive more attention at the university than in school, both purposes should be taken into account in the planning of field-work at each and every stage. Thus it is desirable that simple observation should be supplemented by specific practical exercises whenever possible throughout the school course. A land use survey project should provide a most profitable introduction to field geography, especially in schools where few outdoor exercises have previously been attempted, for a number of reasons.

(1) Many changes in the detailed pattern of land use in this country have taken place in the last fifteen years². Hence the maps of the Land Utilisation Survey of Great Britain which refer to the pre-war decade do not give a reliable indication of the present use of land in any specific area. They are already becoming historical documents. Moreover topographic maps, whether recently revised or not, give comparatively little information about land use, so that there is no satisfactory alternative to original survey if this particular aspect of the landscape is to be studied in map form.

* Mr. Hunt is lecturer in geography in the University of Sheffield.

¹E. H. W. Briault. "The Study of Local Geography," *Geography*, vol. 38 1953, pp. 29-32.

²An actual instance of changes of this kind is discussed elsewhere in this volume by Miss H. Chew : "Post-war land use pattern of the former grasslands of Eastern Leicestershire."

(2) The elements of land use are familiar in everyday life so that no special knowledge is required to carry out the actual task of survey. It can accordingly be undertaken quite successfully by groups of students or children of varied ability, interests and attainments.

(3) The only essential equipment comprises pieces of stiff card to act as portable drawing-boards, coloured pencils and individual six-inch maps which, though they can rarely be used for more than one exercise, are comparatively cheap and of a convenient size.

(4) Land use survey can profitably be undertaken in almost any locality. Wherever there are enough inhabitants to support a secondary school there is usually a sufficient variety of economic uses of land to make survey worth while. Most schools are situated in or near a town capable of supplying the essential minimum of urban conditions and, conversely, most large towns include enough sub-rural features for purposes of experimental survey³.

(5) The familiar distribution map of text-books on economic geography rarely shows the producing areas of more than one commodity. However carefully a student may scrutinise and compare a series of such maps relating to any one area, the mental picture which he eventually forms of the overall pattern of economic activity in that area must in many respects be incomplete and erroneous. A land use map, when available, can be of great help in reducing misconceptions by showing the spatial arrangement of the various activities in their complex reality, if only because the student who has made a first-hand survey of land use in one area is less likely to misinterpret distribution maps of others.

(6) The concept of land use itself focusses attention upon what most geographers consider to be the core of the subject, namely the interaction between human activity and the physical environment. As a survey proceeds therefore it should lead to the discovery in the field of important fundamental principles of correlation between the two main classes of phenomena with which geography is concerned. There is much to be said for introducing the more complex ideas of geography on the ground rather than in the classroom where they may be oversimplified, partially understood and perhaps misapplied to other areas.

(7) The range of experience offered by a land use survey is considerable provided that the project is thought out, organised and carried through as an independent activity, and not merely as a pre-arranged routine operation. At the more advanced stages, a complete survey involves preparing a classification and a technique of recording, exercise of judgment in interpretation of marginal cases during recording, contending with problems of scale reduction, generalisation and use of symbols, shadings or colour in transferring data from field maps to smaller scale fair copies. When a survey is

³ For an example see Ivor Davies: "Urban Farming. The Agriculture of the City of Birmingham" elsewhere in this volume.

complete, the ensuing attempt to account for what appears on the map will not only bring to light technical weaknesses in the survey itself, but also suggest possible lines of further enquiry by means of visits to farms and factories, soil testing, reference to statistics and the like. Thus a well-planned survey should give a sound and realistic introduction to the elementary principles of field methods and to the idea of geographical synthesis.

(8) Finally, a land use survey gives no less, if no more, practice in careful and selective observation and in map-reading than any other type of field exercise.

Clearly, not all the possible types of experience which may be gained during a land use survey are of equal relevance at any particular stage of training. In the junior and middle school training in simple observation and map reading are the first essentials. Techniques as such and the actual medium of training are not of great importance. Nevertheless, a simple survey routine may well be introduced for its disciplinary value. A land use survey on the lines of that carried out by many schools for the Land Utilisation Survey of Great Britain before World War II will be found to serve this purpose adequately⁴. Alternatively, such an exercise may be introduced later, even in the fifth form, to assist children to maintain a healthy sense of proportion in the use of textual matter. If teaching time is unduly restricted the exercise can be planned in class and carried out individually as an out-of-school or holiday task, each child being given a small share of the proposed area to survey and account for in writing. The beneficial results of work of this kind may be expected to include more appreciative map reading and better understanding of the reasons for economic distributions in general.

Fuller advantage may, however, be taken of the opportunities offered by land use survey as a training discipline at sixth form level. This stage of development should be considered critical, not only because of the vocational importance attached to success in scholarship examinations, but also because the foundations of further training in a university are being laid. Many teachers will find it difficult, for obvious reasons, to give equal weight to the two considerations. Nevertheless there is no doubt that the learning habits of adolescence tend to persist in a university where students are expected to choose their own methods of study, so that progress at least in the early part of a student's university career may be said to reflect the quality of his earlier training just as much and perhaps more faithfully than the results of his school examinations. In the long run, certainly for potential university entrants, development of the habit of critical and constructive thinking is much more important than factual learning

⁴ See L. D. Stamp: *Land of Britain*, 1947, for a full account of the methods and history of the Survey. For its application to school work see L. D. Stamp and E. C. Willatts: "The use of land utilisation survey methods in the study of local geography," *Local Studies* (Geogr. Assoc.), 1949, pp. 47-52.

however great the demands of a rapidly expanding reading programme may appear to be. Without pressing the argument further the writer therefore suggests that work in the sixth form should properly be regarded as a preparation for more advanced studies rather than as an end in itself, and moreover that the diversion of a reasonable amount of energy from reading to thought-provoking activities will bring its own immediate rewards to the teacher as well as long-term dividends to his pupils. The same argument might be applied to sixth-form work as a whole though it is particularly apposite in the case of geography where so much depends upon ability to apply sound reasoning to an almost infinite variety of subject-matter.

Field work at this important transitional stage should clearly offer something more than opportunity for further practice in observation and map-reading at a more advanced level, however necessary that may be. Understanding and skill in the use of maps will be much more readily acquired incidentally during the performance of more interesting tasks such as elementary land survey than in formal map-reading exercises. Apart from some surveying, visits to works and other field excursions, which are a recognised part of geography teaching in many schools, it is not altogether easy to find suitable types of field work. A local survey of some kind will in most cases have been carried out in an earlier year and transport difficulties normally prevent the extension of the same kind of exercise to areas further afield. Specialised field work, such as the mapping of rock-types, soils and vegetation, can be undertaken successfully only by pupils with some special knowledge of the features in question, and no more than one or two may be so equipped in each case. The arguments stated earlier in favour of land use survey again hold good and need no repetition. It may however, be helpful to demonstrate how they apply to sixth form work by outlining a survey project and indicating the part which it may be expected to play in the training programme as a whole.

A complete land use survey is carried out in four stages : preparation, field recording, map compilation and interpretation. Each stage raises different problems and may conveniently be considered in turn.

I.—PREPARATION.

(1) Each student requires at least half, preferably the whole, of a six-inch map. Choice of maps and the method of allocating tasks among students must depend upon whether the work is to be done at home or at school, individually or in groups, and on the resources available.

(2) Since the value of the project turns on analysis of landscape, the initiative in discussing and drafting a classification should come from the class. Leading questions might include : What is land use ? Where should a distinction be made between the used and unused, as in the case of marginal land formerly cultivated but now derelict ? Are woodland, marsh and moorland forms of land use or types of

vegetation? Is there a valid distinction between productive and unproductive land? Are sports grounds and industrial sites unproductive, and if so in what sense? Such questions should provoke searching enquiry into the whole question of the relationship between human activity and land. As an aid to discussion it will be found useful for pupils to prepare one list of all uses of land which can be called to mind and another of the human wants which provide the motive for land use. Comparison of the two will give a clear indication of the best ways of grouping uses in the first list into significant classes. From this discussion two points should emerge: (1) there are several *aspects* of the use of any given piece of land, and (2) definite criteria related to one or more aspects of use are needed in the construction of a classification. A simple illustration will make these points clear. The use of a single ploughed field may be described in various ways in answer to a number of different questions:—

<i>Question.</i>	<i>Possible answer.</i>
1. What is its visible character?	Cultivated land.
2. With what activity is it associated?	Arable farming.
3. What sequence of operations is performed here if the activity is not continuous?	Rotation cropping, monoculture etc.
4. What purpose or function does the field serve in human life?	Production of goods.
5. What goods are obtained from it?	Food, fodder and/or raw materials.
6. What importance is attached to it as indicated by the disposal of the products?	Local or regional importance, subsistence or commercial production.

It will be seen that question 1 refers to the visible *form* of the piece of land given to it by use; questions 2 and 3 to the activities taking place upon it or to the *method* of use; questions 4 and 5 to the *purpose* for which it is used and question 6 to its *significance* in human life. Thus there are at least four distinct ways in which the use of this or any other piece of land can be described according to the observer's point of view, each description focussing attention upon a particular aspect of use. While each of the various aspects of land use is in some degree relevant to geographical study, it is evident that no schoolboy, and indeed nobody but a research worker, could reasonably be expected to analyse a simple observation to the degree of refinement which would be necessary to take account of them all. In practice, discussion of the problem of classification need not be carried beyond the point where the existence of different aspects is appreciated and one or two have been selected for study. Once definite criteria have thus been established it is an easy matter to re-arrange the items on the random list of uses already compiled into an organised classification. At the same time it must be emphasised that, unless some effort is made by the pupils themselves to place the whole project upon a sound logical basis, not only will its training value be impaired, but all kinds of practical difficulties will arise with irritating frequency during the actual survey, e.g., features will be found which fit equally well into

two or three different classes of use, or into no class at all. The classification given below is intended not as an ideal but as an example of the kind of thing which might be worked out with guidance by an active group of sixth-form pupils.

<i>Purpose of Use.</i>	<i>Resultant Form.</i>
1. Supply of minerals.	1. Quarries. 2. Mining installations.
2. Supply of vegetable and animal products.	1. Permanent grassland. 2. Rotation grassland. 3. Rough grazing. 4. Cropland. 5. Orchards. 6. Market gardens. 7. Planted woodland.
3. Supply of water.	1. Catchment area reservations. 2. Reservoirs.
4. Settlement sites.	1. Factories. 2. Workshops. 3. Warehouses. 4. Shops. 5. Offices. 6. Public buildings. 7. Dwelling houses.
5. Amenities.	1. Parks and gardens. 2. Sports grounds. 3. Game reserves.
6. Dumping grounds.	1. Dumps.
7. Negative land (i.e., land which is rarely if ever used).	1. Heath and moor. 2. Marsh. 3. Wild woodland.

In this instance two criteria have been employed. Six basic purposes for which land can be used are distinguished—to produce minerals or vegetable and animal products, to collect water, to act as an amenity (this group including for example a shelter-belt on a farm as well as places of recreation), as a dumping ground, or as a site not itself productive, but on which the varied activities of community life can be carried on. In the second column these six basic uses are sub-divided according to the visible form of the features created by use, or in the case of negative land by natural agents. Further sub-division could easily be made if required to suit local conditions.

(3) When a draft classification has been prepared, a method of recording is needed; either a colour scheme or a notation. If colour is preferred the number of uses which can be distinguished is necessarily limited. On the other hand, if a two-figure notation is used, up to one hundred different types of use can be recorded and the proportionately greater amount of detailed information so acquired provides a much sounder basis for generalisation when the final maps are being prepared from field data. According to the specimen classification a steelworks would be denoted on the map by the number 41, but a general (not manufacturing) engineering works by 42. Similarly a Scottish deer forest or a grouse moor would appear as 53, while other stretches of uninhabited highland might be designated 71 or 23⁵.

⁵Useful suggestions regarding notation will be found in P. W. Bryan: *Man's Adaptation of Nature*, 1933.

II.—THE ACTUAL SURVEY.

Soon after the commencement of recording problems will begin to appear. Maps will usually be found out of date in some areas and detail must be added before work can be resumed, an instructive exercise in itself from more than one point of view. Marginal cases which are difficult to fit into any one group will occur frequently, either because they have more than one use or because the classification itself is at fault. Amendments to the classification should be avoided once the work is under way otherwise repetition may be necessary and lead to loss of interest. The most instructive problems met with in rural areas are perhaps those concerned with land rotation, and in urban areas with the superimposition of one activity upon another as a result of outward expansion from the centre. In the one case enquiries of farm workers may be needed to settle doubtful points regarding temporary and permanent grassland, the proposed use of ploughland and so forth. In towns enquiries are rarely necessary and the chief practical difficulty is to decide which of two activities on a given site is the more important, or, alternatively, how to record both on a very small piece of the map. Instances of this kind raise questions of generalisation and scale representation, and while considering them pupils may begin to develop some real appreciation of the elements of urban structure and growth.

III.—COMPILATION.

After the completion of outdoor work comes the time to review the effectiveness of the classification and method of recording, and to assess the relative merits of colour, shadings and symbols for distribution mapping. The field records must be simplified or re-grouped for transference to a reduced fair copy (say at 1 : 63,360), and as the work proceeds the relationship between one feature and another, and between the pattern of land use and the physical background, will begin to emerge more clearly.

IV.—INTERPRETATION.

At this stage practical considerations recede into the background and a serious attempt should be undertaken to explain what has been recorded. Ancillary information noted during the survey should be of value and general knowledge of geography together with the relevant one-inch map will supply tentative answers to some of the more obvious questions regarding the land use pattern. A warning may be necessary that too much reliance should not be placed on the evidence of simple correlation, and auxiliary sources of information such as simplified geological maps, soil maps and personal enquiry should be resorted to whenever possible. The task of writing a descriptive and explanatory account of the land use of the area surveyed effectively concludes the project, but all kinds of suggestions for other types of investigation will normally arise out of the exercise and can be followed up if desired. Parts of the area may be revisited and examined in more detail with some attention to soils, farm

practice, the siting of industries and settlements. In due course, the area as a whole should be compared with other areas described in text-books to press home the lessons already learned.

Much of what has been said about the training value of land use survey in the study of local geography in schools applies equally well to the early part of a university geography course. Many teachers may indeed feel that the project outlined above would, to be worth while, demand more time than can be spared for it, or even that it is in other respects too ambitious even for sixth forms. This the writer believes to be untrue. The work of survey is fundamentally simple and the scope and complexity of the principles and problems woven into a particular exercise can easily be adjusted to the requirements of the group undertaking the work. The chief difference between a sixth-form exercise and one for university students is that in the first case the work must generally be adapted to the facilities offered by the immediate locality of the school and discussion confined largely to the more obvious features of land use and elementary principles, while in the second, the areas for survey must be selected to give wide experience and treatment should be more thorough in every respect. Also, in a university, less importance attaches to the general training value of any one exercise than to its value as one of the special techniques to be used in a complete regional survey, either during a field-class or in the preparation of an undergraduate dissertation.

Considered on its own merits the case for including a land use survey project at an appropriate stage in the school geography syllabus appears to be a strong one. It would be unwise to pursue the discussion further, by attempting to assess the relative value of land use survey and other possible types of field work, without taking into account the special problems of different types of school and differences of curricula ; such problems are much too varied to be broached here. The purpose of this paper, which is simply to draw attention to the latent possibilities of land use survey as a means of carrying economic geography from the classroom into the field, would not however be fulfilled without some further reference to the special significance of land use problems in the modern world and their bearing on the subject-matter of economic geography as taught in schools.

Before the war centralised economic planning of the kind now familiar in most countries was still at the pioneering stage. Projects such as T.V.A. and the Soviet Five-year Plans were no more than large-scale experiments. Overseas investment from western Europe was mainly concerned with maintaining or increasing the supply of one or other of the vital foodstuffs or raw materials required by industrial societies. The steadily increasing pressure of population on land resources in the world as a whole was brought suddenly into the forefront of international problems by the widespread shortages of goods of most kinds during and after the war, and forced upon the attention of western nations by movements towards independence in former colonial territories. At the same time rapid developments in

the chemical industries have made available an ever increasing range of substitute raw materials, so that industrial areas are no longer so completely dependent upon restricted sources of supply as in pre-war days. As a direct result of these changes in outlook, organisation and technique, the primary object of post-war development plans for both under-developed and over-populated areas has been to achieve balanced use of the resources available in each area rather than to safeguard sources of supply of strategic materials for industrial nations. To give but one illustration, monoculture for commercial wheat production in the Canadian Prairies is steadily giving place to mixed farming practices designed to restore lost fertility and to raise the overall level of production rather than to increase the supply of wheat alone. Such changes as these inevitably call for a change in emphasis in the teaching of economic geography. Systematic and repetitive study of the facts relating to production and trade in selected commercial commodities may have been an appropriate procedure under pre-war conditions but it is not so to-day.

The first essential is to foster understanding of the way in which competing and interdependent economic activities are expressed in the land use patterns of different areas. Unfortunately, the available supply of cartographic and statistical data required for this approach to the study of economic geography is deficient in several respects. Britain is the only country for which a complete series of detailed and homogeneous land use maps is available, and these are no longer a true reflection of present-day conditions in some parts of the country. The World Land Use Survey inaugurated in 1950 on similar but more ambitious lines has not yet emerged from the experimental stage. Other land use maps which may be found scattered through map collections and the now extensive literature of geography vary so much in scale and classification that they can rarely be compared one with another without excessive approximation. Official statistics are usually inadequate for two main reasons: that they are compiled and grouped according to administrative units of area, and that the figures relating to most parts of the world refer to commercial production only and give no satisfactory indication of the relative importance in any particular area of products used locally and those entering world trade. Distribution maps compiled from statistics necessarily suffer from the same limitations as their source-data. In short, while land use types and systems potentially form the ideal framework for a course in the geography of economic activity, a syllabus based on types of commodity or types of activity is easier to prepare and to illustrate from secondary sources, that is from books and maps normally available to teachers. Nevertheless the fact remains that the geographical aspects of economic activity in a given area cannot be fully appreciated without a good land use map for there is no other way of showing the distribution of *all* significant activities in their true spatial context. For these reasons first-hand experience of the conditions and problems of land use in at least one

area is all the more important for every student of economic geography at an early stage in his course.

The foregoing considerations lead to two general conclusions: (1) A knowledge of land use patterns and of the way in which they come into being in different environments, should be part of the background of everyone who wishes to take an intelligent interest in contemporary world problems, so that land use as a topic should be introduced quite early in the school geography syllabus. (2) Real understanding of the complexity and significance of land use problems is more likely to develop from experience of actual surveys than from extensive acquaintance with texts and statistics now in general use.

These conclusions lend support to the arguments advanced earlier in this paper in favour of land use survey as a training discipline and give grounds for the further suggestion that the task of integrating local studies with other parts of the geography course may be considerably eased by a judicious choice of field exercises.

THE POST-WAR LAND USE PATTERN OF THE FORMER GRASSLANDS OF EASTERN LEICESTERSHIRE

HILARY C. CHEW*

EVEN to a casual observer of eastern Leicestershire the contrast between the land use of the 1930's and that of the present day is clearly apparent. The almost unbroken expanse of permanent grass shown on the pre-war Land Utilisation Survey map to occupy the bulk of this part of the county no longer remains. In the 1930's, apart from the mixed farming districts towards the north-east and along the Wreak valley, arable fields were rare and the permanent grass acreage represented about 90 per cent. of the total farm land. At the present time, however, a mosaic of arable and pasture fields covers the whole area. In 1948 in a great majority of the parishes more than 40 per cent. of the land was in tillage (Fig. 1).

The ploughing campaign of the war may be cited as the cause of this change. That the greater part of the war-time arable land is still retained, however, so long after the end of hostilities and with compulsory ploughing no longer enforced, suggests that an investigation of the post-war land use pattern should be of value. The development of mixed farming over the whole area permits a detailed examination

* Miss Chew, who now holds an appointment as Tutor in the Department of Geography, University of Liverpool, carried out the field work connected with this article while holding a post-graduate research scholarship at University College, Leicester.

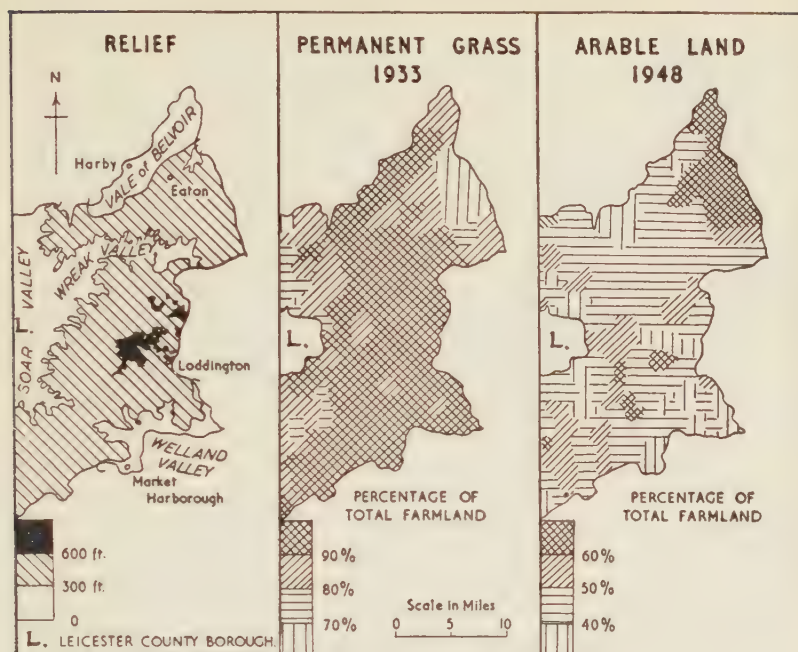


Fig. 1.—Eastern Leicestershire.

of the geographical factors influencing the distribution of arable and pasture land where previously the high degree of uniformity of land use, resulting from the predominance of all-grass farming, prevented such a study from being made. Furthermore this was one of the most specialised and long established grassland farming areas of the whole country. As the Ministry of Agriculture returns show the arable acreage of Leicestershire decreased with only slight fluctuations from 1866 until 1939. Indeed it would appear that systematic laying land down or allowing it to "tumble" to grass had begun much earlier, and was initiated by the enclosures, particularly those of the 19th century.¹

The findings of the Land Utilisation Survey indicate that of prime importance in determining the use of the land was the heavy nature of the soils,² especially those developed from the Lias clays and the boulder clay which together cover by far the greater part of the surface. Difficulties arose particularly from the shortness of the working season during which preparation for crop production could be carried out. In wet weather the heavy clays are unworkable and a good tilth is difficult to obtain, particularly with the use of only horse-drawn equipment. The land was thus considered to be

¹ W. Pitt. *A General View of the Agriculture of Leicestershire*, London, 1809, pp. 14 and 79. W. G. Hoskins. *Studies in Leicestershire Agrarian History*, The Leicestershire Crop Returns of 1801, pp. 127–143.

² L. D. Stamp. *The Land of Britain. Land Utilisation Survey Report*, Part 57, *Leicestershire*, R. M. Auty, London, 1943, p. 274.

more economically utilised as permanent pasture and to be unsuited to arable farming. It was stated in the Land Utilisation Report of Leicestershire in connection with the distribution of wheat that, "The reason for the limited amount grown . . . is to be found in the heaviness of the clay soil, which though obviously favourable as far as productivity goes, nevertheless involves implements and labour on a scale rather more than can be economically employed in the production of a corn crop while yet retaining a fair margin of profit over cost. This, indeed, is true of all the 'heavy land' crops in the county."³ The distribution of arable land supported this view. It was largely confined to the lighter soils, to those developed on the river terraces of the Wreak valley, the lighter patches of glacial drift, and the Middle Lias Marlstone outcrop. The post-war pattern of land use however bears no direct relationship to the distribution of these lighter soils.

A comparison of the distribution of arable land in the parish of Eaton in pre-war days and in 1950 serves to illustrate this point. This parish is situated on the dip-slope of the Marlstone escarpment which borders the Vale of Belvoir towards the north-east of the county. The Marlstone, easily traceable by the red loamy soil to which it gives rise, is exposed over approximately half the area. Heavy clay soils occur where boulder clay overlies the solid beds or where sharply cut valleys reach down to the Lias clays. In 1950 there was no sign of the former close relationship between the occurrence of arable land and the outcrop of Marlstone (Fig. 2). Similar percentages of the latter and of the boulder clay which occupies the bulk of the remaining area were under arable crops.⁴

This change does not invalidate the claim that land use in pre-war days was largely controlled by the nature of the soil. During the depression of the 1930's the implements and machinery owned by the average farmer were inadequate for economically working heavy and tenacious soils.⁵ The low prices obtainable for cash crops and the relative cheapness of feeding stuffs both weighed in favour of the abandonment of tillage with its high labour costs, especially in those areas where rearing and fattening stock were the chief activities. Moreover in eastern Leicestershire conditions are particularly advantageous for permanent grassland farming. Not only are the pastures of high quality⁶ but also the retentiveness of the soils promotes summer grass growth even in dry periods and, under careful management, a

³ L. D. Stamp. *op cit.*, pp. 276-7.

⁴ In 1950 arable land occupied approximately 60 per cent. of the Marlstone outcrop and 70 per cent. of the boulder clay. The Lias clays exposed chiefly on steep hill-sides were for the most part under permanent grass.

⁵ A survey showed that in 1928 in Midland England tractors were insignificant on farms with less than 100 acres of arable land, a clear indication that they were virtually absent from eastern Leicestershire. *Agricultural Research in 1928*, a publication of the Royal Agricultural Society of England. C. S. Orwin, "Agricultural Economics," p. 64.

⁶ L. D. Stamp, *op cit.*, Grassland Survey Map, p. 264.

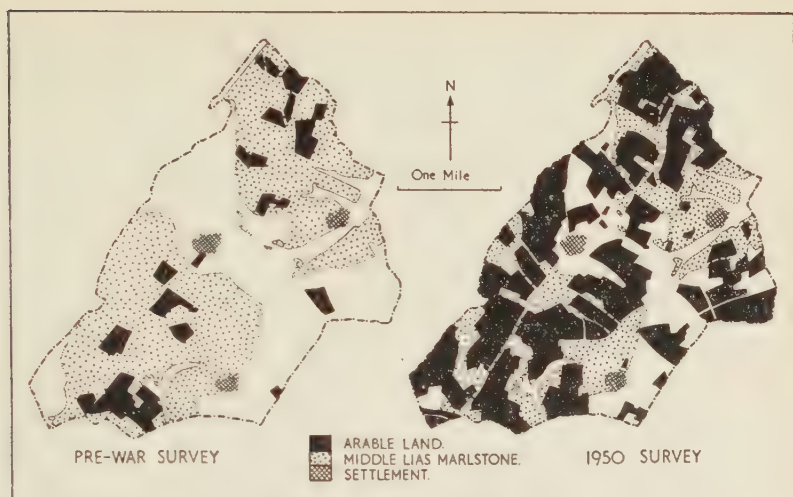


Fig. 2.—Changes in the distribution of arable land in Eaton Parish.

good sward of nutritious grasses can be maintained year after year.⁷ Periodic ploughing of pasture for reseeding and associated crop production, usual even in the primarily stock farming districts of less well-favoured areas, is therefore not essential.

In recent years improvement of power-driven farm machinery and its adaptation for use on smaller farms have been of particular significance in the development of heavy land arable farming, and farming prosperity that has made this machinery available on the majority of farms has been of still greater importance.⁸ Tillage can thus be more effectively and more rapidly carried out with consequent economy in labour costs,⁹ and the chances of completing the preparation of the land in the available working season are also correspondingly increased. In addition, the necessary stimulus has been provided both during and since the war by the higher and guaranteed prices obtainable for crops. Progress in breeding strong-strawed wheat and making available adequate supplies of the seed have much reduced the risk of loss through "lodging," otherwise great on heavy clay loams. Wheat is now the chief cash crop in eastern Leicestershire and it is sold from the majority of farms. The scarcity and greatly increased prices of

⁷ Much of the pasture land was of particularly high quality in 1940 although it had been under permanent grass for a very long period. See W. Davies, "Plough up Policy in Relation to the Fattening Pasture Districts," *Journal of the Royal Agricultural Society of England*, volume 103, 1942, pp. 125-135.

⁸ Tractors on holdings or owned by contractors in England and Wales increased from 94,740 in 1942 to 168,860 in 1946. *Ministry of Agriculture Returns United Kingdom*, Part 1, H.M.S.O., 1947, p. 50, 1950, p. 32.

⁹ Experiments carried out in 1928 showed that ploughing costs could be reduced from 14s. or 20s. per acre with horses to 8s. or 15s. 9d. with a tractor. J. Owen "Agricultural Engineering," *Agricultural Research in 1928*, pp. 83, 84. Mechanisation on a 1,000 acre arable farm in Norfolk reduced the labour bill, the largest single cost of production, from £4,000 to £700 per annum in 1930-31. H. G. Robinson. "S. E. and J. F. Alley's Mechanised Farming," *Journal of the Royal Agricultural Society of England*, volume 92, p. 165.

feeding stuffs have added a further incentive that induces stock farmers to maintain at least a part of their war-time arable acreage. The price of cattle cake has increased fourfold between 1939 and 1951 from about £8 to more than £33 per ton.¹⁰

Advances in farming technique and the agricultural prosperity which makes them effective have together made it possible for physical difficulties to be overcome to such an extent that the heavy lands of eastern Leicestershire can now be profitably utilised both to contribute towards satisfying present-day demands for farm produce and to facilitate more economic stock farming. In the last century in times of farming prosperity or national emergency high prices and chances of profit have led to an extension of tillage in this area; but this extension was much more limited than that which has taken place during the last decade. Never before have the farmers of this county been armed with such powerful equipment with which to overcome the particular problems of tilling the heavy clay loams.

The pattern of land use recently developed over the landscape of gently rolling ridges and valleys which makes up so large a part of eastern Leicestershire at first sight appears quite haphazard, but, adjustments to local physical conditions are discernible. In the south of the county the uplands of Jurassic rocks fall abruptly to the Welland valley, an area with distinctive physical features and a related pattern of land use.¹¹ Beside the Welland itself the water-meadows remain as an area of carefully managed ancient turf. Subject to winter flooding and with a high water table these first class pastures are useless for arable farming and they have remained unbroken throughout the war. The upper slopes of the hills which bound the valley are also chiefly under permanent grass, and the tillage land is situated on the well-drained, relatively level land extending from the alluvial floodplain to the lower slopes of these hills (Fig. 3). The particularly steep gradients¹² present real difficulties to tillage even with modern equipment and in many cases the upper limit of ploughland on the lower parts of the hills is marked by a distinct break of slope. The majority of farms include at least a small area of intermediate land, neither too ill-drained nor too steep to be maintained in arable use, and crop production is an essential feature of the post-war farming economy. Nevertheless grazing advanced store stock continues to be the chief activity.

The alluvial flats which border the other larger rivers of eastern Leicestershire, namely the Wreak, the Eye and the Sence, are also marked by the occurrence of broad strips of permanent grassland for

¹⁰ H. I. Moore and J. R. Craddock-Turnbull. "Cropping for Self-sufficiency at Seale-Hayne," *Agriculture*, volume lviii, p. 406. Demands for winter feeding stuffs have increased with a recent expansion of dairying in eastern Leicestershire.

¹¹ In many of the Welland parishes in 1933 no land or only about 1 per cent. of the total area was recorded as being in arable use.

¹² Gradients greater than 1 in 6 appear seriously to hinder tillage on heavy land but this is stated only as a very approximate measurement in the absence of more accurate information.

which their ill-drained nature is doubtless chiefly responsible. However investigation of the smaller valleys, also largely under permanent grass, reveals that as a rule this use of the land cannot be so explained. In occasional arable fields the ploughland extends to within a few feet of the stream, suggesting that it is not a physical factor which has caused so much river-side land to be retained as permanent pasture. Apart from those obtaining water from the Marlstone or from glacial gravels the majority of farms depend on ponds or streams for supplies for stock. The retention of pastures bordering reliable streams is therefore usual if the carting of water or the provision of a piped supply can thus be avoided.¹³

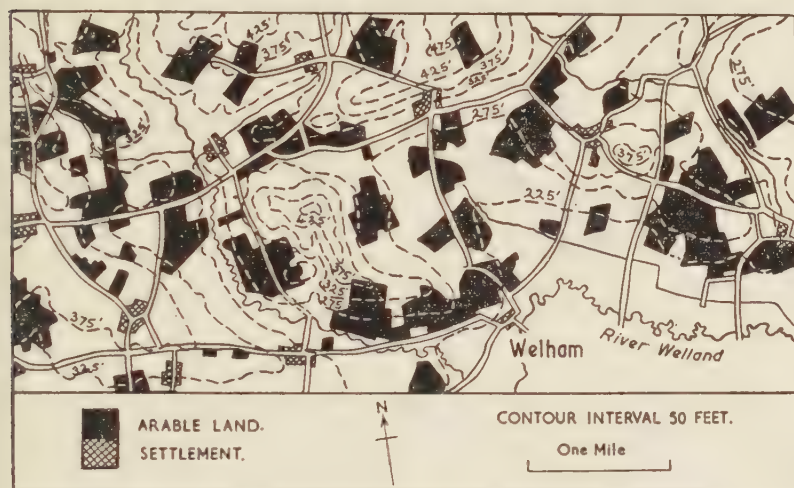


Fig. 3.—Part of the Welland district, 1951.

Towards the south-east of the county near the Rutlandshire border, as in the Welland valley, the recently developed land use pattern is clearly related to the relief of the land. Deep dissection by numerous streams has resulted in relatively level land being much more restricted than is usual in the greater part of eastern Leicestershire. Gradients are sufficiently steep to impede even modern power-driven farm machinery to such an extent that many slopes can be worked only down hill and a corresponding increase in tillage costs results. Arable land occupies only about 25 per cent. of the farm land, a much lower proportion than in neighbouring areas of less marked relief.¹⁴ It is to be found chiefly on the more gentle slopes, and the steeper slopes ploughed during the war have been for the most part reseeded to permanent grass (Fig. 4). The layout of the farm shown in Fig. 5

¹³ In Leicestershire as a whole only 30 per cent. to 44 per cent. of the farm houses had piped water supplies in 1941-3. *National Farm Survey of England and Wales. 1941-3. Summary Report*, H.M.S.O., 1946, p. 64.

¹⁴ This area does not appear on the 1948 distribution map drawn on a parish basis since the parish boundaries extend beyond the area of deeper dissection.

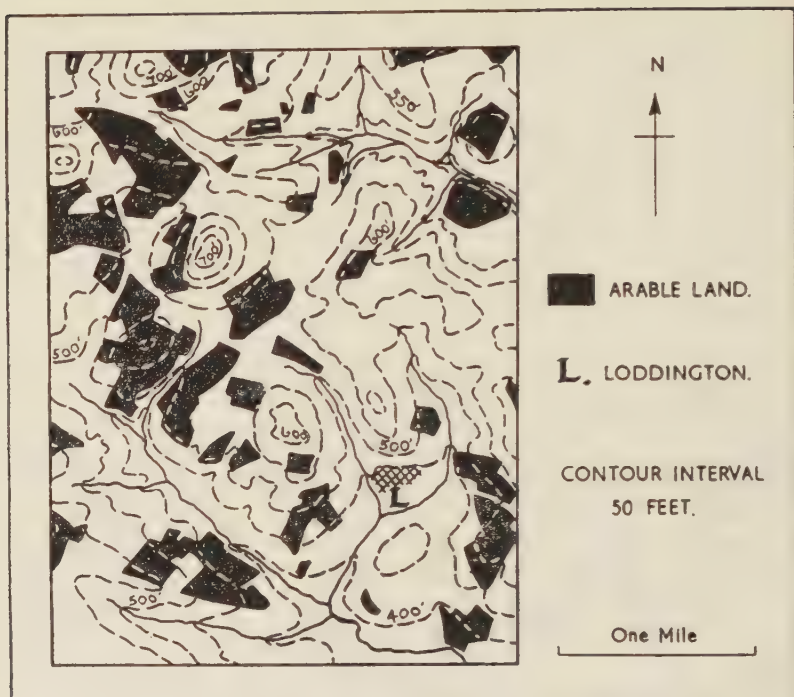


Fig. 4.—Part of the uplands of southeast Leicestershire, 1951.

is influenced by relief. The land beside the river and three fields on the hills were ploughed during the war, but only the level river-side field was later retained in tillage for feed crop production. It is of interest that this field is the only one on the farm with a water supply reliable throughout the year. Thus in this instance the control of gradient has proved sufficiently strong to override any consideration of economy which would suggest that this field should be kept for grazing in order to avoid the laborious task of carting water in dry periods.

Apart from this area the particularly steep slopes are as a rule under permanent grass but over much of the county gradient appears to be of little significance since the relief is subdued. Some farmers consider that the somewhat better natural drainage of the sloping land outweighs the advantage of greater ease of working machinery on more level fields, and lay out their farms accordingly. Others hold, equally firmly, the opposite view. It would indeed be of interest to discover how far the use of the various fields in an area such as this where real controls are largely absent is in fact determined by ideas untested and possibly false.

Over much of the former grasslands no real order can be found in the occurrence of arable and pasture fields until the individual holdings are examined. A high proportion of these carry on dairying as a subsidiary if not the main enterprise. It is therefore of major

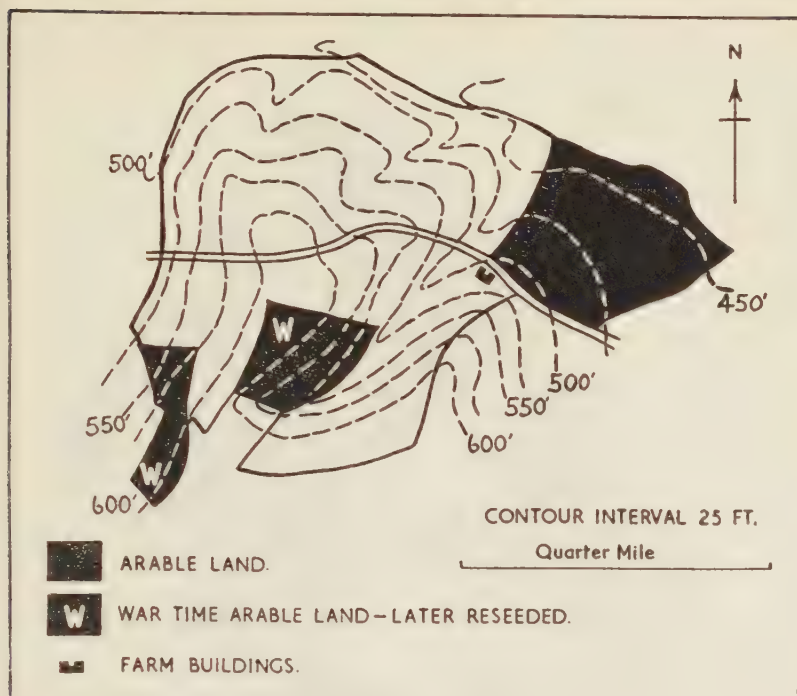


Fig. 5.—Specimen farm near Loddington, 1951.

importance that there should be, near the buildings, pastures on which the milking herd may be grazed or wintered if the buildings are not adequate.¹⁵ Many of the holdings consist of strips of land extending away from the villages, where the buildings are inconveniently situated, mainly it seems in order to obtain a water supply. As a result the villages are usually practically surrounded by permanent grass, whereas the arable land occupies the more distant parts of the farms, chiefly those fields accessible from hard tracks. This lay-out is clearly illustrated by the post-war land use pattern of the parish of Clawson and Harby in the Vale of Belvoir, an area where little variety in natural conditions occurs (Fig. 6). Few arable fields were to be found in this part of the Vale in pre-war days, but in 1950 45 per cent. of the land in Clawson and Harby was under the plough. A large part of the pasture remains in a roughly north to south strip in which the villages are situated and the same pattern is repeated around the scattered farms on which pasture is retained near the buildings. The post-war map of Eaton parish shows the same feature.

Other local factors, also, determine the particular lay-out of holdings to a greater or lesser degree and thus influence the general

¹⁵ Many farms on which few stores were wintered before the war and especially those in the villages are poorly equipped with buildings and stock are outwintered on permanent pastures.



Fig. 6.—Clawson and Harby Parish, 1950.

pattern of land use. Frequently, for example, road-side fields are ploughed rather than those less accessible, in order to avoid the wastage of time and destruction of pasture occasioned by the movement of heavy machinery over farm land (see Fig. 3). The presence of reliable springs or ponds, or a watermain which may be tapped are also factors considered, apart from the quality of the grass sward, in deciding which land shall be used as pasture. In addition the individual wishes of the farmer must not be forgotten. Only in this way, for instance, is it possible to account for the presence of an all-arable farm, inconveniently laid-out on irregular land, a few miles from Market Harborough in a district long famed for its pastures. The owner scorns the traditional practices of his neighbours the graziers and continues to farm as he did previously in the arable district of Bedfordshire from which he has recently come.

A number of conclusions may be drawn from the study of this post-war land use pattern. It is apparent that only a very small proportion of the area is physically unsuited to tillage, given the aid of modern farming equipment. With the exception of the flood-plains of the larger rivers and the deeply dissected area already discussed, such land occurs in scattered areas of very limited extent, along the Marlstone escarpment or in the more sharply cut valleys for example. It is divided among holdings including land which presents little difficulty to tillage, and consequently the practice of mixed farming is not seriously hindered in any extensive area of the former grasslands. The land use pattern depends very largely upon the particular facilities and equipment of the individual holdings which are in part an inheritance from the system of farming practised in the past. This conclusion is further supported by the fact that there has been a marked tendency to return to grassland farming on the small strip holdings associated with the villages. These, in contrast to the larger holdings which together include the bulk of the land, are as a rule poorly equipped, inaccessible and too small to be economically run as mixed arable and stock farms, and they were frequently dependent on contractors for arable work during the war.

The direct relationship between the nature of the soil and the distribution of arable land is no longer evident although the type of soil can be seen to influence the distribution of individual crops. It should be noted incidentally that stock farming remains of prime importance and cropping varies from area to area with regard to the particular requirements of the stock. For example a higher proportion of the arable land is under feed crops where a particular emphasis is laid on dairying. However the modification of stock farming has been inevitable owing to the development of tillage and a proportion of the summer grazing stock has been "ploughed out." In this post-war period cash crop and fodder production, introduced during the war, has so far remained an integral part of the farming economy.¹⁶ The farms have thus become more self-supporting, and also economically more stable owing to the addition of a further source of income. The bulk of the area can indeed justifiably be regarded as "convertible" land, generally favourable either for grassland or arable farming. The degree to which the latter persists in the farming economy will no doubt vary in accordance with its relative profitability.

¹⁶ For Leicestershire as a whole the Ministry of Agriculture statistics for 1952 show that approximately 47 per cent. of the total farm land was in arable use.

REFERENCES.

- L. D. Stamp. *The Land of Britain. Its Use and Misuse*, London, 1947.
 W. B. Mercer. "Agriculture in Birmingham and District," *Birmingham and its Regional Setting*, British Association Handbook, Birmingham, 1950, pp. 303-322.
-

URBAN FARMING

A STUDY OF THE AGRICULTURE OF THE CITY OF BIRMINGHAM

IVOR DAVIES*

IN the popular imagination the Birmingham-Black Country Conurbation¹ is generally considered to be densely built-up, whereas, in actual fact, open spaces together with derelict and "undeveloped" land constitute some 56% of the total area.² This paper deals with farmland which is found within the limits of the City of Birmingham and forms some 9% of the city's total area of 51,147 acres. The areas of urban farming can broadly be divided into two types according to their location; first the 40% which lies within the built-up area, and second the 60% which lies on the outer fringes of the city—in the main to the south and southwest, as Figure 1 indicates.

Inevitably all this land is severely affected by its location in an urban environment, but in spite of all the difficulties there is developed as intensive a system of farming as one will find anywhere. But it is difficult on this land to reach levels of production which are in any way comparable with those of true rural areas, with the result that, in spite of soil inherently of good quality, the land fails to retain, still less to attract, farmers of the right calibre.

The soil of these urban farmlands is developed mainly from glacial drift, which usually gives rise to a sandy or gravelly soil well suited to "turnip cultivation." Two areas are exceptional: California to the southwest and King's Norton to the southeast, where one finds a clayey loam whose lamination suggests deposition from a glacial lake.³ Little of the soil of Birmingham is inherently of poor quality, but the effect of smoke pollution has been to make it very acid because of the ease with which lime can be washed out of the soil and acid-forming particles washed into it.

Such acid conditions result in a reduction in the work of the soil bacteria, particularly that of the organisms responsible for the production of nitrates, resulting in the growth of coarse grasses and weeds at a

* Mr. Davies was until recently a post-graduate research student in geography at the University of Birmingham, where he made a special study of the interaction of agriculture and settlement within the Birmingham-Black Country Conurbation. He is now a University Fellow in Geography at the University of Illinois, U.S.A. He would like to acknowledge his indebtedness to Dr. G. J. Butland and Mr. B. L. C. Johnson for all the help and encouragement which they have given him and to express his appreciation of the assistance he has received from Mr. R. Hopkinson and Mr. R. M. J. Marshall.

¹ As defined by the West Midland Group in their publication *Conurbation*, London, 1948, p. 47. In 1952 the author estimated that just over 29% of the Conurbation was in agricultural occupation.

² West Midland Group, *op. cit.*, pp. 26-27.

³ This area is distinguished from the rest of the city by the importance of King Edward potatoes in the cropping; elsewhere Majestics for the fish and chip market are more important.



Fig. 1.—Urban farming in the City of Birmingham.

very rapid rate. Before the war such extremely acid conditions were of little or no account, for food concentrates could be bought easily, and in pastures simply used as stock-yards, their condition was of little consequence. But since 1939, with the need to grow as much food as possible on the farm, the outlook is different, and though great steps have been made towards counterbalancing this soil acidity much still remains to be done as the condition of most of the permanent pastures and arable fields indicates.⁴

The City of Birmingham shows a predominance of small-holdings, holdings of under 100 acres occupying some 47% of the agricultural area (Fig. 2). The average size of holding is about 30 acres, but if all holdings under 5 acres are excluded the average size rises to some 50 acres. A feature of the area under survey is that some 20% of the farms do not lie within compact ring-fences, yet this proportion does not seem particularly high when one takes into account the urban character of the environment. Doubtless the explanation lies in the fact that since 1945 there has been much infilling of open spaces by building. It

⁴ Before the war many of the farms were entirely under permanent pasture, the food being bought from the outside usually in the form of concentrates. With the advent of war and the beginning of the "Plough-up Campaign" the farmers had to plough the majority of their pastures, yet many of them lacked not only experience in arable farming but also the requisite machinery.

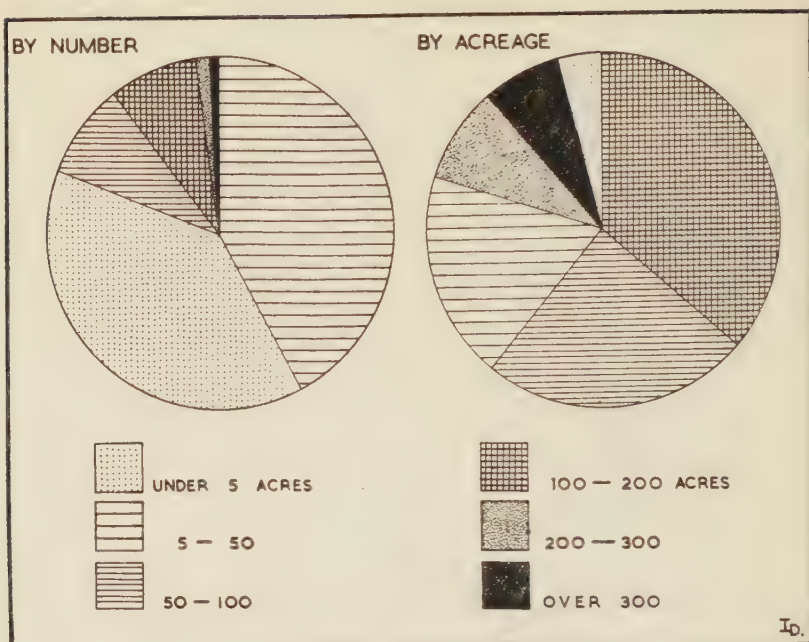


Fig. 2.—Farms by size groups.

is very difficult to farm scattered pieces of land in a built-up area because of trespass and traffic. As one might expect there is a general tendency for severance to be relatively more common on the larger holdings; it occurs on any large scale only on farms of over 100 acres.

Owner-occupiers form some 22% of the farmers, which is quite low compared with the equivalent percentage of 31% for England and Wales.⁵ The high percentage of tenants is doubtless due to the fact that so large a proportion of the farmland in Birmingham is owned by the Corporation and by a large number of industrial companies who ultimately mean to develop their land for their own use. In many ways the constant fear of losing land is responsible for much poor farming in the area.

A noteworthy characteristic of urban-farming, in general, is the rather large percentage of land-holders who have occupations other than farming. For instance in the City of Birmingham only 47% of the land-holders owning more than 5 acres are full-time farmers (see Fig. 3), whereas in England and Wales as a whole the equivalent figure is 74%.⁶ A number of farmers in Birmingham have entered farming from industry with little or no experience, and often with little or no capital.

⁵ Ministry of Agriculture, *The National Farm Survey*, H.M.S.O., London, 1946, p. 22.

⁶ Min. of Ag., *op. cit.*, p. 11. A full-time farmer is a person fully engaged in farming as an occupation and is wholly or substantially dependent on it for a livelihood. A part-time farmer is one in some other occupation besides farming, but where farming is still the main source of livelihood. The spare-time farmer

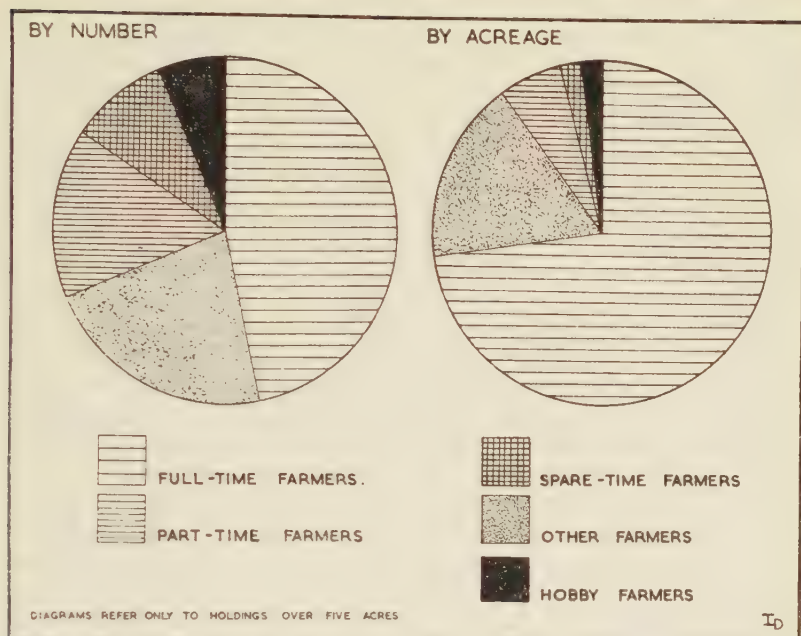


Fig. 3.—Occupiers by economic types.

A study of the condition of the farms well exemplifies the influence of the urban environment, and how strongly it militates against good farming. Usually farm buildings are indescribably bad, and little is ever done to improve them because of the ever impending threat of the farm being taken over for development. Nevertheless, there are some model farms within the city—all on the extreme outskirts and often attached to mental homes or other public institutions where cheap and ready labour is available. Table I, which is the fruit of an intensive farm to farm survey carried out by the author in the summer of 1951, summarises the main features of farm conditions in Birmingham, and compares them with those published in the *National Farm Survey* for the country as whole.

The table indicates the very bad condition of the farm fences, which is partly due to neglect but more often to the sensitivity of the hawthorn—the most common hedgerow—to atmospheric pollution, and to the corrosion of the wire fences, which takes place in Birmingham twice as fast as normally because of the sulphuric acid fumes in the air. Indeed, in many cases the fences are just non-existent, and it needs little thought to imagine the consequent state of the crops.

has some full-time or nearly full-time employment other than agriculture, but farms in his spare time to supplement his income. The hobby farmer farms for a motive other than profit, such as pleasure or amenity, and he is not, therefore, dependent on agriculture for a living. The "Other" types of occupiers comprise farms run by educational and other institutions; in general these occupiers are not farming primarily for profit and in many cases are corporate concerns.

TABLE I.—THE CONDITION OF THE FARMS

	Percentage of total in England and Wales	Percentage of total in Birmingham
Condition of farm buildings :		
Good.. .. .	39	23
Fair	49	44
Bad	12	32
Condition of ditches :		
Good.. .. .	38	9
Fair	53	59
Bad	9	32
Condition of fences :		
Good.. .. .	38	13
Fair	54	52
Bad	8	35

Generally, in Birmingham the farms have an inconvenient layout, especially those within the built-up area, an inconvenience mainly due to the loss of part of the holding for development purposes. This loss is often more serious than merely the direct loss to agriculture of a set number of acres; for, while there is usually a town plan, there is all too often no rural plan, so that instead of one complete holding being lost, parts of a good many farms lose land with the result that the economy of a larger area of agricultural land than need be is upset.

Before making a summary of the actual farming itself, it is of value to try to evaluate the actual effect which the urban environment has on the farming. Firstly, the smoke polluted atmosphere injures plant life by a reduction of the sunlight by the smoke pall, by coating the leaves with a thin layer of tar which chokes the stomata through which respiration is conducted, and by injuring the living cells of the plant by the action of the sulphuric acid in the air.⁷ All this results in a loss of plant vigour, so that not only do cereals ripen unevenly (and cattle have a high rate of occurrence of dysentery), but the farmer's income is affected by the low crop yields.⁸ It has been demonstrated, for instance, that oats sown on the outskirts of Leeds have a germination capacity of 98% compared with 68% in the city and 17% in the heavily polluted industrial area: similarly, cabbages grown in Leeds were found to be one-seventh the weight of those grown outside that city.⁹

The effect of the large number of dogs in the town is to make the keeping of sheep impossible,¹⁰ (this is partly because of the bad fences), whilst their worrying of cattle together with the noise and disturbance

⁷ A. Marsh, *Smoke, the problem of coal and the atmosphere*, London, 1947, pp. 81-93.

⁸ Crop yields in Birmingham are the lowest in N.W. Warwickshire for all the main crops, but especially for turnips, swedes, mangolds and seed-hay.

⁹ A. Marsh, *op. cit.*, p. 81.

¹⁰ In 1951 the number of dog licences issued in Birmingham was 64,215, thus the city has a density of dogs of 1.25 per acre—the second highest in the West Midland Conurbation, the highest being that of Smethwick with 2.0 per acre. The lowest density of dogs is that of Tettenhall, Wolverhampton, with 0.2 per acre. No sheep whatsoever are kept in Birmingham; indeed there are only 1,659 sheep on the 46,631 acres of agricultural land in the West Midland Conurbation.

of the city has an adverse effect on milk yield. Trespass is, perhaps, one of the worst scourges, and it is especially bad in the Conurbation owing to the lack of public open spaces.¹¹ Indeed, many farmers complain that their holdings are no more than playgrounds for children and exercise ground for dogs. Farms are also criss-crossed by public footpaths so that gates are often left open, with the result that cattle stray on to the busy main roads among the heavy traffic.

Farming practice is also hampered by the complaints of householders over the smell of silage and farm muck, and of the wind spreading weeds over their gardens from the farms. Labour is very difficult to attract in Birmingham, and in any case few people think of the possibilities of agriculture when they apply for another occupation. At the same time farm work is much heavier in this urban environment through the splitting up of holdings by main roads, the water mains from Wales and the electric pylons which straddle the fields.

In the populous industrial belt around Birmingham there is very little general farming;¹² instead cash crops are made to grow on land which, in other circumstances, would be left as unfit for cultivation were it not for the large market offered by the industrial population in the immediate vicinity. The farmers live by retailing milk and eggs, potatoes and vegetables (hence the nickname of "apron farmers") and anything else the smoke polluted atmosphere will permit to grow. The cropping is arranged so as to give a maximum production of cash crops, and at the same time to provide fodder for the dairy herd.¹³ The two most common types of crop rotations in the area are set out in Table II, but there is no rigidity in them and, indeed, some of the farmers have practised no rotation for some years while others have their whole holding under permanent pasture.

TABLE II.—CROP ROTATIONS IN THE CITY OF BIRMINGHAM

<i>Stock Farm</i>		<i>Arable Farm</i>	
1st year	Cereal	1st year	Cereal
2nd year	Cereal	2nd year	Roots
3rd year	Roots	3rd year	Cereal
4th year	Cereal	4th year	Ley
5th year	Ley		
6th year	Ley		

A most interesting feature is the varied nature of the farming in Birmingham, and, though milk production is important on the majority of the farms as Table III indicates, it is by no means dominant. Indeed, in this respect one might say that soil variations and individual preference seem to have triumphed over an urban environment which clearly favours milk and eggs at the expense of all other products.

In Birmingham the arable acreage forms some 56% of the cultivated acreage, which is rather a high figure considering the environment and contrasts strongly with conditions before the war. Of the arable crops, cereals are the most important, as Table IV illustrates: wheat forms 21% of the arable acreage while only 9% is devoted to potatoes.

¹¹ West Midland Group, *op. cit.*, p. 17.

¹² J. P. Maxton (ed.), *Regional types of British Agriculture*, London, 1936, p. 221.

¹³ The sale of mowed hay from school playing fields, parks and sports grounds to the urban farmers is of great importance.

TABLE III.—FARMS BY ECONOMIC TYPE IN BIRMINGHAM

	Percentage of Nos. of Farmers	Percentage of Total Acreage
Very Intensive Milking	2	2
Dairy Farming	10	41
Mixed Farming	5	22
Arable Farming	5	13
Small Holdings	18	8
Nurseries	10	2
Fattening of Stores	4	1
Grazing Land	20	5
Accommodation Land	26	6

By far the most usual breed of cattle is the Dairy Shorthorn with the Friesian second, these two being the most popular because of their hardiness, adaptability and high milk yield—qualities which are all important in such an area as this. Most of the farmers practice the system of “flying herds,” whereby cows are kept for two or three years to the end of their lactation and then sold off as dry; the result is that the cost of herd replacement is very high indeed. Few of the herds are pedigree, and in 1951 7% of the herds were Tuberculin Tested, 7% were Attested, 41% were Accredited and 45% were Non-designated. There were at this time 583 milk cattle in Birmingham (3% of them were removed due to the occurrence of mastitis), forming some 29 herds.

Quite a high percentage of the dairy cattle in the City are fed solely on concentrates, and as a result they give a very high milk yield. Indeed, for instance in 1951 one herd of eight cows gave a total milk yield of 11,398 gallons, a yield which is almost double the average for a herd of this size not fed on concentrates.

While the rearing of pigs and poultry is an important subsidiary branch of the farming of the area, few holdings concentrate solely on either one or the other, and neither is as important as is the case in Lancashire.

TABLE IV.—SUMMARY OF THE 1951 CROPPING IN BIRMINGHAM

	Percentage of arable acreage	Percentage of cultivated acreage	
Wheat	21.2	11.9	
Barley	2.1	1.2	
Oats	15.2	8.6	
Mixed corn	11.9	6.7	
Rye	3.2	1.8	
TOTAL GRAIN CROPS	53.6		30.2
Beans and peas	0.4	0.2	
Potatoes	9.1	5.2	
Roots	4.3	2.4	
TOTAL FALLOW CROPS	13.8		7.8
TOTAL ROTATION GRASS	22.4		12.6
ORCHARDS, FRUIT AND VEGETABLES ..	7.6		4.0
BARE FALLOW	3.2		1.8
Percentage of cultivated acreage :			
Arable	56.4		
Permanent pasture	43.6		

Thus, urban farming in Birmingham is generally of a very low standard with low financial returns, yet at the same time the farmers have heavy expenses additional to those of normal farming because of

the adverse influence of the environment. With a few exceptions, the condition of the farms and their fixed equipment is generally low and in some cases deplorable, but improvement seems impossible, especially as a great deal of the agricultural area is likely, at some indefinite time in the future, to be taken for development purposes. We can but wonder that the urban farmers survive in the face of all the hazards and difficulties of their calling, and we must, at least, admire them for their courage and tenacity of purpose.

THE DELIMITATION OF LAND USE REGIONS IN A TROPICAL ENVIRONMENT

AN EXAMPLE FROM THE WESTERN REGION OF NIGERIA

K. M. BUCHANAN *

THERE are few areas in the world so predominantly agricultural in character as Tropical Africa; in a territory such as Nigeria some 85 per cent. of the people are peasant farmers, exports of agricultural products represent the mainstay of the economy, mining is areally unimportant and industry so far as it is developed is based on the processing of the products of farm and forest. To the geographer it is, in consequence, a major misfortune that information on the spatial aspects of Tropical African agriculture, on the distribution of the major crop assemblages and of cash and subsistence economies, should be so inadequate and that, so often, teaching should have to depend on the essentially non-geographical statements given in territorial handbooks or departmental yearbooks. This inadequacy is in part a reflection of the relatively recent concern of the geographer with Tropical Africa but a more important factor has been the dearth of the comprehensive and detailed statistical and cartographic material such as has provided an essential basis for the study of the agricultural geography of more developed sectors of the globe. At the same time, this dearth is not absolute and especially in those areas with an economy based on perennial tree crops and where the agricultural economy has attained a certain measure of stability it is possible to build up, from scattered published and unpublished statistics supplemented by field traverses, a broad picture of the land use pattern. This note describes some of the sources available in the Western Region of Nigeria and presents a map of land use regions based on these sources.

* Professor Keith Buchanan was formerly head of the Department of Geography at University College, Ibadan, Nigeria. After a period on the staff of the London School of Economics and Political Science he has recently been appointed to the newly established Chair of Geography at Victoria University College, Wellington, New Zealand.

BASIC DATA USED IN COMPILATION OF THE MAP

(a) *Vegetation cover*

While most of the Region has a high forest cover, savana vegetation appears in the dry belt of the northwest. The High Forest/Savana boundary is of major significance in determining the general limits of humidity-loving perennials such as cocoa and oil palm; oil palms do not occur on a large scale beyond the climatic limit of the high forest zone, though discontinuous patches may be found where edaphic conditions are favourable as along river-courses, while cocoa, a shade-loving crop, is not found beyond the existing high forest boundary; this, as a result of clearing, lies some 30-40 miles to the southeast of the climatic limit of high forest. The appearance of the northern grain crops, millet and guinea corn, and the seasonal immigration of cattle in search of savana grazings further differentiate the agriculture of this savana zone from that of the high forest zone. The areas of Forest Reserves, which occupy some 14 per cent. of the area of the Region, constitute distinct non-agricultural enclaves; they may be subdivided into two land use types, the fuel and protection reserves of the savana zone and the commercial lumber reserves of the high forest zone.

(b) *Distribution of the major crops*

Statistics on the distribution and production of the major subsistence food crops are almost non-existent and in Nigeria the separation of the root crop economy of the South from the grain economy of the North must be based largely on field traverses and subjective impressions. Virtually the entire Western Region lies, however, within the southern root crop zone with yams, cocoyams, cassava and maize as the basic crops and with rice (for which estimates of acreage are available on a Division basis) of growing importance in the high rainfall areas. Only in the drier northwest are the savana grains (millet, guinea corn) of significance. The distribution pattern of the major cash crops (chiefly perennial tree crops) can be determined more accurately, since all the major export crops are graded at the buying station and these grading statistics, for several hundred grading stations scattered throughout the export crop regions, make possible the construction of detailed distribution maps for cocoa, oil palm and rubber¹; the general limits of the producing areas thus defined can be checked by field traverses. Kola, a crop of major importance in the internal trade of the Territory, is not graded and the statistics for rail exports from various stations in the Region, supplemented by field observations, have been used to determine the limits of the kola-producing region.

(c) *Character of the economy*

In the inaccessible areas of the northwest, and to a lesser degree in the northeast, the economy is still dominantly *subsistence* in character but elsewhere cash crop production, for internal or overseas markets,

¹ K. M. Buchanan, "Nigeria—oldest remaining British Colony," *Economic Geography*, vol. 28, no. 4, 1952, p. 311.

has been grafted on to the basic subsistence economy. Kola and rice are excellent examples of crops which enter into the local exchange economy; so, too, are yams. The generalised delimitation of areas producing yams for trade with other parts of Nigeria is based on data supplied by the Department of Agriculture and on field observations supplemented, as in the case of kola nuts, by statistics of tonnages handled by the railway; in general, they are the more thinly-peopled areas lying beyond the main perennial tree crop regions. Quantitative assessment of the importance of this *internal exchange economy* is not, however, possible. With export crops, in contrast, estimates of the aggregate value (at internal Nigerian price levels) of all export crops handled by each grading station can be made and the resultant figures, expressed in terms of value of export output per unit area, using the Division as the statistical unit, permit a quantitative assessment of the degree of development of the *peasant export economy* to be made. *Plantation production* is of minor importance, the delimitation of the areas where this type of economy is developed is based upon data supplied by the Department of Agriculture and the company concerned and on field observations.

LAND USE REGIONS OF THE WESTERN PROVINCES

The sources outlined above, supplemented by some 5,000 miles of field traverses by car, provide the basis for the map of land use regions presented here. Eight major regions are distinguished; they are listed below and their major features are briefly summarised.

1. Coastal Swamp Region. Fishing; small-scale production of palm produce; some potentialities for rice production (e.g. Warri area).

2. Forest Regions.

(a) Benin High Forest Zone. The main area of commercial lumber production in the Territory. Mainly second growth rain forest with a thin population.

(b) Northwest Woodland Reserves. Of negligible timber-producing importance.

3. Cocoa Belt. Subsistence root crop economy with some rice production in the southwest; palm oil for local consumption and internal trade, with palm kernels for export. Cocoa main export crop, value of agricultural exports ranging from £500 to £750 per square mile.

(a) Southern sub-region on lighter soils marginal for cocoa; emphasis on kola and rice, with fruit (citrus, pineapples, bananas) locally important.

4. Dry Forest Region of Northern Ondo. Differentiated from (3) by much lower degree of development of export production, output for export dropping to £40 per square mile in Ondo Division. Cocoa of some importance in west but production of palm products chiefly for local markets with little export production. Rice is an important secondary crop in the humid south while the northern sector is a yam surplus area.

5. Eastern Palm Belt. Essentially an extension of the main Palm Belt of the Eastern Provinces. Rain forest vegetation, now largely cleared and replaced by oil palm bush ; subsistence production of root crops and maize, with palm products as the major export crop. Export production ranges from £170 per square mile in the north to over £400 in the south.

(a) Outlier of less intensive production, with thin population and yam export trade.

6. Benin-Warri Rubber Region. Rain forest with subsistence production of root crops and rice ; palm produce and rubber for export.

(a) Small-scale plantations, some rice.

(b) Larger plantations, with some non-African enterprise.

7. Dry Forest Region of Northeast Benin. Subsistence farming with some rice production and yam surplus. Low degree of development of export crop production (Kukuruku Division under £30 per square mile).

8. Dry Belt of Oyo. Open savana with scanty development of export crop production (under £1 per square mile). Yams, with some surplus for trade with Cocoa Belt ; millets, guinea corn, cotton and some cattle ; localised production of tobacco.

CONCLUSION

Far from being an area of relatively uniform agriculture, the Western Region is characterised by a well-marked areal differentiation into a series of relatively clearly-defined land use regions, each characterised by a distinctive assemblage of crops and a distinctive blending of the various types of economy (subsistence, internal exchange, peasant export and plantation). This pattern shows a very close relationship to environmental conditions, notably soil and climate ; that this adjustment is closer than in many other tropical territories is due to the relatively long history of commercial development in the Region and to the well-developed communication network which has encouraged the development of local specialisation to a degree unusual in Negro Africa. In this latter connection it is instructive to compare conditions in the perennial tree crop economy of the Western Region with conditions in Northern Nigeria where large-scale commercial development is relatively recent, transport facilities frequently poor and where in recent years development schemes have led, and are still leading, to a significant transformation of the agricultural landscape ; here crop boundaries are still fluid (witness the expansion of the cotton and groundnut belts in the last five years) and the whole land use pattern is in a state of flux.

In an area such as the Western Region, which has attained a considerable degree of economic maturity, the delimitation of land use regions as attempted above places descriptive regional geography on a surer foundation and provides a systematic frame work for the analysis of other aspects of the cultural landscape. At the same time, it is suggested, such a delimitation has also a considerable practical value to the administrator, since the land use region, characterised by

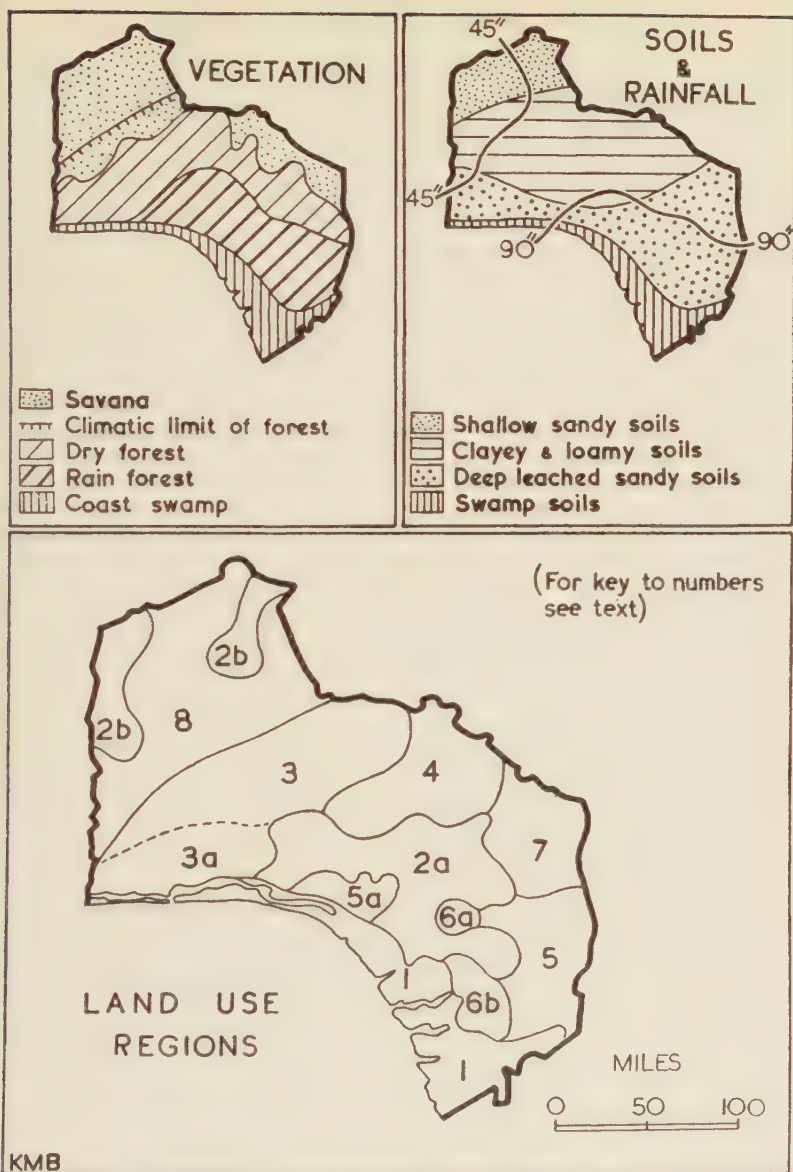


Fig. 1.—The Land Use Regions of the Western Provinces and their environmental background.

Note the close correlation between the Cocoa Belt (3) and the area of clayey and loamy soils (Ibadan type) within the dry forest belt; the kola belt (3a) on the sandy soils of the southwestern sector of the dry forest belt; the concentration of specialised production of palm oil and kernels (5) on the acid leached soils of the east; and the dominance of subsistence economies in the less accessible northeast and northwest (in the latter area soil and climatic conditions are also limiting factors to the development of export cropping). Soil boundaries after H. Vine, *Provisional Soil Map of Nigeria*, 1951 (with some modifications); vegetation boundaries from R. W. J. Keay, "Provisional Map of Vegetation Zones" in *An Outline of Nigerian Vegetation*, Lagos, 1949

a distinctive assemblage of crops and forms of economy, provides the logical basis for those sample studies on which agricultural census work in a Territory such as Nigeria must be based and for the location of the agricultural pilot projects which today are such an essential element in all schemes of tropical rural development.

SOME USEFUL STATISTICAL SOURCES: A REVIEW

K. R. SEALY*

A WEALTH of statistical material now exists and the aim of this paper is to indicate some sources likely to prove of most value to geographers. In those branches of research where statistics are of great importance, some knowledge of statistical method is essential, but for most other purposes one need only be aware of the major pitfalls. The saying that "anything can be proved by statistics" stems as much from attempts to use inaccurate data, as from faults of method.

The science of statistics could be defined as the study of the methods of examining the particular properties of large numbers, with the aim of describing complex groups so that the latter may be easily comprehended. It attempts to analyse the accuracy of estimates, to measure significant differences, and to facilitate comparison¹. On any scale, the compilation of statistics is an expensive business, and, for this reason, most major sources are on a national or international basis and are the responsibility of the governments concerned, or of such bodies as the United Nations. Out of this comes a heterogeneity of figures, collected in many instances for administrative ends, and thus incomplete for many scientific purposes. Quite apart from such shortcomings, it should be realised at the outset that all statistical tables are estimates.

The definition of the unit of measurement is of great importance, for comparison is possible only when all data conform to the definition. The unit must not be ambiguous, *e.g.* "output per worker" in coal production should be expanded in the notes to the table to make quite clear what is meant by "output" and "worker." It might thus be defined—"number of tons raised in a given period, in the aggregate of coal mines of Great Britain, divided by the average number of persons employed underground in that period." The importance of discovering the full implication of the units used either from the table or from the appended notes cannot be overstressed. Where the information cannot be reduced to a single unit, the data are presented in a number of tables.

The comparability of the data is, therefore, wholly dependent on the uniformity of the unit used. Apart from the question of ambiguity of definition, it is equally important to make sure that the data are homogeneous over a period of time, *e.g.* records of imports may be tabulated by "countries of consignment" for one period, and by

* Mr. Sealy is a member of the staff of the Geography Department at the London School of Economics and Political Science.

¹ See E. F. Lindquist, *Statistical Analysis in Educational Research*, Boston, 1940.

"countries of shipment" for another, and the change will affect the figures for countries with no ports, or no direct shipping connections. In other cases, figures may be given in monetary values which will almost certainly change over a period of time. Here the use of index numbers is often resorted to, a matter dealt with later. Finally, where areal units are under review, these too must be wholly comparable. *e.g.* the National Coal Board's regional division of the British coalfields is, in many cases, different from the regional division used before nationalisation, and adjustment is necessary before a comparison can be made between pre-war and post-war production figures.

Where very large numbers are being dealt with, or where accessibility for counting is poor, a moderately large number of items may be chosen at random, and these will on the average represent the characteristics of the whole group—a process known as "sampling." The two most common methods are "random sampling" and "controlled sampling." A random sample is a sample selected so that every member of a group has an equal chance of being selected, while a controlled sample is the case in which selection of some related characteristic is made to conform to some predetermined proportion. In either case care is taken to ensure that no personal bias can affect the selection. In general it is true to say that the larger the sample and the longer the period taken, the more representative the sample is of the whole group.

Where comparisons are made in monetary terms over a period, distortion arises from changes in the price levels from which the calculations are made during the period under review. Recourse may then be made to *index numbers*, which show the trend of a given set of figures. Although index numbers will offset price changes, they do not normally take into account changes of quality, which can be important since better articles normally cost more. Nevertheless, for the comparison of trade figures they are extremely useful. The Board of Trade value and volume indices for imports and exports are perhaps more often used by the geographer than any other, and we may take these index numbers as an example:—

The calculation of value and volume indices for imports as used by the Board of Trade. (Figures are hypothetical).

Base year, 1938. Indices are then calculated to the base year, which is taken as 100.

Year	Trade as declared (£'s million)	Trade on basis of 1938 average values (£'s million)	Index Numbers	
			Average value	Volume
1938	900	900	100	100
1948	1,050 (a)	747 (b)	141 (c)	83 (d)

Then 1948 imports, revalued from (a) by comparison with 1938 values, amount, we will suppose, to £747 million (column (b)).

$$\text{Import volume index } (d) = \frac{747}{900} \text{ times } 100 = 83.$$

$$\text{Index of average values } (c) = \frac{1,050}{747} \text{ times } 100 = 141.$$

Then (d) shows that the physical volume of goods imported in 1948 is 83 per cent. of that for 1938; (c) shows that the goods actually imported in 1948 cost 141 per cent. of what they would have cost in 1938.

The foregoing observations may be summarised as a series of checks that should be made before making use of any table. In the first place the data should be either complete, or representative of the whole, and should not be subject to any personal bias. Secondly, the data should be comparable, should conform to definition, and be homogeneous in nature. Finally, if monetary values are concerned, they may be checked by reference to the quantity and quality of the goods involved.

WORLD SOURCES

The most uniform collection of world statistics is provided by the departments of the United Nations secretariat. Since the earliest of these publications include pre-war figures, there is little need for the general reader to refer to the older League of Nations documents.

For most general purposes the *United Nations Statistical Yearbook*², published by the Statistical Office of the Department of Economic Affairs, is a most useful annual source. It is a general compendium covering population and area, vital statistics (i.e. birth rates, marital status, etc.), employment, agriculture, mining and manufacturing, trade and transport. Metric units are used throughout, and a conversion table is given to facilitate a change of unit. The "totals" given for each table cover the member countries of the United Nations, but "World Totals" are specified where further information is available concerning non-members. The user should bear in mind that much of the latter information is only approximate.

The information to be derived from the general yearbook may be amplified in particular directions by reference to the more specialised United Nations publications. Detailed population statistics may be found in the *Demographic Yearbook*, prepared by the U.N. Statistical Office in co-operation with the Department of Social Affairs. For all aspects of labour and employment the *Yearbook of Labour Statistics* published by the International Labour Office (I.L.O.) is available.

In the field of agriculture, industry, and trade, the amount of statistical material is prodigious, and only the more generalised sources can be mentioned. Food and agriculture are dealt with in the two volumes of the Food and Agriculture Organisation (F.A.O.) publication, *The Yearbook of Food and Agriculture Statistics*³. The two parts of

² This and other U.N. publications are published in the United Kingdom by H.M. Stationery Office; see details on pp. 313-315.

³ See also Sea Fisheries and Forestry yearbooks for detailed information on these subjects.

this annual work deal with production (Volume I), and trade in agricultural commodities (Volume 2). The first volume covers an area representing three-quarters of the globe, and gives information on land utilisation, agricultural production, and food supply, together with tables dealing with price levels on a comparative basis. "Country Notes" are given which record the nature of the individual national surveys from which the compilation is made. Volume 2 deals with trade and, as before, the figures are based on official sources and the findings of such bodies as the International Cotton Advisory Committee. The commodities are dealt with in sections, and summaries are given for homogeneous groups, *e.g.* "cereals." Country notes are included similar to those in Volume I. The section of the general yearbook dealing with mining and manufacturing may be supplemented by the *World Economic Report* of the United Nations. This publication is of value to the geographer in a number of ways, quite apart from its statistical appendix. The report is devoted to the analysis of domestic developments, and to international economic relations. Part One is concerned with the major national changes in the year under review, and deals with the countries by groups. Certain countries of Latin America and the Far East are considered separately, while the remainder are considered under two headings, the "economically developed private enterprise" countries (U.S.A., United Kingdom and Commonwealth, Europe), and the "centrally planned" economies (Eastern Europe). Part Two deals with international relationships, of which the first section on trade is of interest. The statistical tables contain some valuable data, but the indices of mining and manufacturing on a world basis, and the table showing the direction of international trade by currency areas are of particular relevance.

Finally, mention should be made of the *Yearbook of International Trade Statistics*, which contains an analysis for 52 countries in the current (1951) volume. For each country three tables are given, *i.e.* historical, for years 1930-51, a table in the national currency of quantity and value of imports and exports by commodity, based on the *Standard International Trade Classification*, and, finally, a table in the national currency of the value of imports and exports by countries of origin. In each case, a conversion table is given expressing the national currency in terms of dollars (\$). The general introduction to the book should be carefully read before consulting the figures, and in particular, the differences between "f.o.b." and "c.i.f." rates should be clearly understood, so that comparability is effective.

Apart from the United Nations publications which have been discussed in the foregoing paragraphs, a common source of world statistics is the *Statesman's Yearbook*. This annual volume is of limited statistical value to the geographer, for not only are most figures rounded, but no uniformity of unit is employed, the figures being quoted in the unit employed by the country concerned. Comparability between areas is hampered by the resulting need for conversion to a common unit.

UNITED KINGDOM SOURCES

The analysis of British official sources may be carried out in a similar fashion to that employed for world statistics, since the layout of the various returns is essentially the same. For general use the *Annual Abstract of Statistics* gives condensed information for all subjects from population to trade for the United Kingdom. With the addition of the *Statistical Abstract of Ireland*, the field may be extended to cover the whole of the British Isles⁴.

As before, the general abstracts may be enlarged in particular directions by reference to the more specific returns. Population is dealt with in the reports which are made after each decennial Census. The final reports of the 1951 Census are not yet available, but two preliminary volumes have been published. The *Preliminary Report of the 1951 Census* is a general statement, while Volume 2 consists of 1 per cent. Sample Tables. The latter provide useful information, the significance of which is discussed in the introduction to the volume. In particular, the section concerned with the interpretation of sample records is a valuable commentary on sampling technique in general. The tables themselves give a cross section of the complete returns. Part I deals with age and marital conditions, occupations, industries, and housing, while Part 2 covers the character of households, education, fertility rates, and contains a supplement on the major conurbations which includes maps (Appendix D). For the intercensal years, annual estimates issued by the Office of the Registrar General, the *Statistical Review of England and Wales* in two parts (medical and civil), and the *Estimate of the Population of England and Wales* carried out in June of the year reviewed, are most useful⁵. In the field of employment statistics the annual return of the Ministry of Labour and National Service, *Tables Relating to Employment and Unemployment in Great Britain*, contains a regional and industrial analysis of employment in Great Britain. The tables give the numbers of men and women employed, and unemployed, for each industry at the end of May for the current year, and the two previous years. Employers and self-employed persons are not included. It should be noted that these returns are "spot" figures for a given point in time, and do not reflect seasonal variations.

The compilation of agricultural statistics was both spasmodic and incomplete in the pre-war period, and it is only since the war that these figures have been put on a satisfactory basis⁶. Two main series are now published by the agricultural departments of the United Kingdom; the first covers the whole of the country, and the second series gives separate returns for England and Wales, Scotland, and Northern Ireland. For most purposes, the first series, published in two volumes, is sufficient. *Agricultural Statistics, United Kingdom*,

⁴ See also the *Ulster Yearbook* for information on N. Ireland.

⁵ See also the 1939 Return based on National Registration.

⁶ For pre-war period, see *The Agricultural Output and Food Supplies of Great Britain* (1929).

Part 1, covers acreage under crops, production and employment, while Part 2 covers gross and net output, and the utilisation of agricultural products. The *Sea Fisheries Statistical Tables*, an annual report for England and Wales, is most comprehensive, and when used with the separate returns for Scotland, covers all aspects of sea fishing. The *Report of the Forestry Commission*, 1951, records the extent and nature of British Woodlands.

Mining and manufacturing is served by a number of official returns apart from the comprehensive Census of Production tables, of which further mention is made below. The annual *Statistical Digest of the Ministry of Fuel and Power*, and the monthly *Coal Figures* of the National Coal Board cover this aspect of industry, while the mining trades are treated as a whole in the *Statistical Summary of the Mineral Industry*⁷. By far the most detailed figures of industrial production are to be found in the annual *Census of Production*⁸. The last completed reports are for 1948, although the returns for some industries are available for 1949. Tables are published separately for each industry but each is classified as constituting part of a group of trades, under the Standard Industrial Classification. Each group is given a Volume number, and there are 12 volumes in the complete census. Thus, coal mining forms Volume I, Part A, while non-metalliferous mining is the subject of Volume I, Part B. The complete list of industries and their groupings is given in the Introductory Notes which are published separately. It should be noted that the 1948 Census does not include Northern Ireland: the first post-war return for this area is to be found in the 1949 Census⁹.

The trade of the United Kingdom is considered in the *Annual Trade Statement*, and in more detail in the monthly *Trade and Navigation Accounts*. For most purposes the former return is sufficient, and merits further consideration. The Annual Statement is published in four volumes, of which Volumes 1 and 4 are relevant for geographers. Volume 1 considers the imports and exports of the United Kingdom on a commodity basis, while Volume 4 deals with the data according to country of origin or destination. A separate supplement to Volume 4 is published every three years, and covers port statistics, the current return being for the period 1946-8. Finally, for information on railways, roads, and inland waterways, the monthly *Transport Statistics* of the British Transport Commission may be consulted.

SOURCES OF STATISTICAL INFORMATION

Official Government publications and the publications of the United Nations are obtainable from Her Majesty's Stationery Office, P.O. Box 569, London, S.E.1. The addresses of other publishing bodies are quoted after the references given in the following list.

⁷ Covers the Commonwealth and certain foreign countries, published by Colonial Geological Survey.

⁸ For Iron and Steel, see also the *Statistical Yearbook of the Iron and Steel Federation*.

⁹ This results from the Statistics of Trade (Northern Ireland) Act of 1949.

All information is the latest available at the time of compilation.

New and reprinted H.M.S.O. publications are catalogued in *Government Publications Monthly List*, price 2s. 6d. per year and the *Annual Consolidated List*, price 1s. Other useful information on official sources can be found in *Government Statistical Services*, 1953, 1s. 3d., with appendix A, Statistics collected by Government Departments, and appendix B, Principal Statistical Publications.

UNITED NATIONS AND INTERNATIONAL REFERENCES (prices refer to paper bound copies).

United Nations

Statistical Yearbook, 1952, 554 pp., 45/-.

Demographic Yearbook, 1952, 518 pp., 45/-.

Yearbook of Labour Statistics, 1951-52, 359 pp., 30/-.

Yearbook of Food and Agricultural Statistics, Part 1, Production, 1952, 320 pp., 17/6; Part 2, Trade, 1952, 306 pp., 17/6.

Yearbook of Fisheries Statistics, 1950-51, 296 pp., 17/6.

Yearbook of Forest Products Statistics, 1952, 171 pp., 12/6.

World Economic Report, 1950-51, 140 pp., 11/-.

Yearbook of International Trade Statistics, 1951, 272 pp., 17/6.

Standard International Trade Classification, U.N. Statistical Papers, Series M, No. 10, 2nd edition, 1951, 150 pp., 11/-.

Monthly Bulletin of Statistics (world economic and social conditions), 7/6 each, 75/- annual.

Quarterly Bulletin of Coal Statistics, 25/- annual.

Timber Statistics, quarterly, 15/- annual.

Scheduled Airline Operations, Digest of Traffic Statistics to March, 1951 (International Civil Aviation Org. of U.N.), 368 pp., 10/3.

Statistical Yearbook of the World Power Conference, 1946, 128 pp., 30/-, published in 1950, F. Brown, editor; obtainable from Central Office, World Power Conference, 201/202, Grand Buildings, Trafalgar Square, London, W.2.

The Statesman's Yearbook, 1953 (90th Annual), 1,596 pp., 42/-, published by Macmillan & Co., London. Pt. I International Organisations (U.N. etc.). Pt. II British Commonwealth and Empire. Pt. III U.S.A. Pt. IV Other Countries. With books of reference under major headings, countries, states and territories in each part.

UNITED KINGDOM REFERENCES (published by H.M.S.O. unless otherwise stated).

Annual Abstract of Statistics, No. 89, 1952, 316 pp., 21/-.

Statistical Abstract of Ireland, 1952, 299 pp., 7/-, published by the Statistical Office, Dublin and obtainable from Government Publications Sales Office, G.P.O. Arcade, Dublin.

Ulster Yearbook, 1950, 377 pp., 2/6.

The Census, 1951, *Preliminary Report*, 52 pp., 5/-; *One Percent Sample Tables*, Pt. 1, 159 pp., 17/6; Pt. 2, 366 pp., 40/-.

The Registrar General, *Statistical Review of England and Wales*, 1951, Pt. 1 (Medical), 474 pp., 12/6; Pt. 2 (Civil), 181 pp., 5/-.

The Registrar General, *Estimate of the Population of England and Wales*, 1951, 15 pp., 6d.

National Register, United Kingdom and Isle of Man, Statistics of Population on 29th September, 1939, 164 pp. (now out of print).

Tables relating to Employment and Unemployment in Great Britain, 1948-50, 55 pp., 3/6.

Agricultural Statistics, England and Wales, 1945-49, Pt. 1, 217 pp., 7/-; 1945-47, Pt. 2, 95 pp., 2/6.

Agricultural Statistics, United Kingdom, 1950-51, Pt. 1, 41 pp., 2/6; Pt. 2, 1943-44 to 1949-50, 46 pp., 2/6.

Sea Fisheries Statistical Tables, 1951, 36 pp., 1/6.

Scottish Sea Fisheries Tables, 1952, 108 pp., 4/-.

Forestry Commission *Census Report* No. 1, *Census of Woodlands*, 1947-49, 264 pp., 12/6 (also later reports).

Development Commission, *Survey of Agricultural Forestry and Fishing Products in the United Kingdom*, 1953, 142 pp., 7/6.

Meteorological Office, *Weather Report*, monthly, 2/-.

Meteorological Office, *British Rainfall*, 90th Annual Volume, 1950, 25/-.

Ministry of Fuel and Power, *Statistical Digest*, 1951, 221 pp., 21/-.

Coal Figures (monthly, ceased publication with No. 49 for April, 1953, 1/3); information also available in *Quarterly Statistical Statement*, 8 pp., 6d. for first three issues, 9d. for last issue of the year. Obtainable from National Coal Board, Publications Section, Hobart House (Room 237), Grosvenor Place, London, S.W.1.

Statistical Summary of the Mineral Industry (Colonial Geol. Surv. Mineral Resources Div.), 1945-51, 348 pp., 27/6.

Board of Trade, *Census of Production*, 1948 (complete), 1949, 1950 (part). Readers are advised to consult the Introductory Notes for the year required, and to select volumes from the lists given.

Report on the Census of Production, 1950, Introductory Notes, vii pp., 1/-.

Index of Industrial Production, 1952, 54 pp., 2/6.

Statistical Yearbook for 1952, Pt. 1, *Iron and Steel Industry of the United Kingdom*, 114 pp., 7/6, published by British Iron and Steel Federation, Steel House, Tothill Street, London, S.W.1.

United Kingdom Petroleum Industry, Statistics relating to Consumption and refining Production, 1951-52, published by Petroleum Information Bureau, 29, New Bond Street, London, W.1.

Board of Trade, *Accounts relating to the Trade and Navigation of the United Kingdom*, monthly, 12/6; £7/15/- a year.

Board of Trade, *Annual Statement of the Trade of the United Kingdom*, Vol. 1, 1950, 396 pp., 35/-; Vol. 4, 1951, 170 pp., 30/-. N.B.—For information concerning imports and exports of each port of the U.K., see Vol. 4 (Supplement) published triennially, 1946-47-48, 147 pp., 6/-.

Board of Trade, *Overseas Trade of the United Kingdom*, 1951, 10/6.

Transport Statistics, published every four weeks, 2/6 copy, annual subscription, 30/-. Published by the British Transport Commission.

British Transport Review, published thrice yearly in April, August, December, 1/- copy, annual subscription, 3/-. Published by the British Transport Commission.

Both the above reports are obtainable from the Publicity Officer, British Transport Commission, 55, Broadway, London, S.W.1. The Commission states that back numbers are available except *Transport Statistics* No. 1, 1948, and *Transport Review*, Vol. 1, No. 6, December, 1951.

COMMONWEALTH AND FOREIGN REFERENCES.

Commonwealth Economic Committee, *Annual Summaries, World Production and Trade for the Commodities*: Meat, Fruit, Grain Crops, Industrial Fibres, Plantation Crops, Vegetable Oils and Oilseeds, Dairy Produce, 5/- each. (H.M.S.O.).

Commonwealth Economic Committee, *Surveys of World Production and Trade. Wool Production and Trade*, 1950-51, 5/-.

Colonial Office, *Digest of Colonial Statistics*, bi-monthly, 5/-.

Organisation for European Economic Co-operation, *Foreign Trade, Statistical Bulletins*, monthly. Series I. *Foreign Trade by Areas*, 1953, 5/-. Series IV *Foreign Trade by Commodity and Country of Origin and Destination*, 1952, 6/- per part. *General Statistics*, 1953, 10/-.

Statistical Yearbook for 1951, Pt. II, *Iron and Steel Industry in Overseas Countries*, 435 pp., 15/-, published by British Iron and Steel Federation.

A series of papers on "the sources and nature of statistical information in special fields of statistics" was published in the *Journal of the Royal Statistical Society*, Series A, in 1949, and 1950. This includes papers on International Rubber Statistics, Oils and Fats, U.K. Tobacco Statistics, Sugar Industry, Coal Mining and U.K. Iron and Steel Industry.

A good critical survey of British sources is M. G. Kendall (Ed.), *The Sources and Nature of the Statistics of the United Kingdom* (1952).

It is hoped to publish a further list of statistical sources relating to Europe in a later issue.

OBITUARY

JAMES FAIRGRIEVE

James Fairgrieve has died and his departure marks for us teachers and students of geography the end of an era. He was a central figure in the long struggle for the subject to which he gave a life of enthusiastic work.

Born in 1870, the son of the United Presbyterian minister of Saltcoats, he was a pupil at Glasgow High School. In 1886 he entered the University College of Wales, Aberystwyth which at that time drew from all over the country thoughtful students especially of languages and mathematics. Fairgrieve took his London B.A. degree and in 1891 entered as an exhibitioner at Jesus College, Oxford. He took a second class in mathematical moderations in 1893, and a second class in finals in mathematics in 1895. This was followed by teaching experience at Kelso and at Campbeltown grammar schools and then, having married Emily Croft, his fellow student at Aberystwyth, he opened a private school in North London which husband and wife conducted for some years. In 1907, Fairgrieve became a master at the William Ellis endowed grammar school, Gospel Oak, and the private school was handed over to Mrs. Fairgrieve's sister. He had at that time recently joined the Geographical Association and was destined to give it 47 years of devoted service.

The years that followed were full of enterprise in geography teaching. Published work included *Geography in School* and *Geography and World Power*, the latter book deriving more than a little of its force from the fact that it was written "for the fun of the thing" and not for publication. It has been widely appreciated and has been translated into several languages. It is one of those books that, like Mackinder's *Democratic Ideals and Reality*, was too forward-looking to be properly appreciated in pre-war Britain, though both books could have helped cabinet ministers to avoid mistakes from which our country is unlikely to recover. Geography was, as yet, an unknown sphere to men with the then traditional British education.

A Geophysical Memoir published by the Meteorological Office also dates from this period and gives results of hundreds of thousands of calculations. Fairgrieve was one of the earliest students of local climates, i.e. of what has since been called micro-climatology. Still another pioneer effort at this time was the mapping of land utilization on the northern boundary of London. Fairgrieve believed fiercely in trying new things, but always focussed his efforts on the teaching of our subject; and he has often criticised those who merely teach without putting a personal initiative into their work. Until the war of 1914-18, geography was the Cinderella subject in schools, but Fairgrieve's work at the William Ellis school made a stir in educational circles and strengthened Herbertson's hand in his hard struggle. The best geography was, for Fairgrieve, "geography learned through the soles of our feet," and the mapping of land utilization was just one of many lines of study of the country surrounding our schools, homes,

and work-places that Sir Patrick Geddes was to christen "Regional Survey." Even the many-sided pioneering that radiated from the William Ellis school was by no means all that Fairgrieve did in those years of hard work. He examined for various authorities, and gave drastic and valuable criticism of papers set by people who had stayed in the old geography when he was adventuring into the new.

In 1909 began Fairgrieve's lifelong connection with the government of our Association that led him with R. J. Finch and others to organise a branch in North London, which, later on, when communications had become more rapid, merged itself into what has become the Westminster Branch. He was one of the pillars of this branch work as well as a speaker at the Association's Annual Conferences, Summer Schools, and other gatherings.

1912 saw his appointment as "Lecturer in Education with special reference to Geography" in what was then the London Day Training College, and has since become the University of London's Institute of Education; and he held this post, developed into a Readership in 1931, until his retirement at the age limit. In this new position he felt more than ever bound to concentrate on improving teaching of the subject and his subsequent publications are in this field. His school books had a very wide circulation but it was the direct influence of his personality that counted for still more. Year after year at the Annual Conference of the Association former students would crowd around him, and recently, when he was a cripple in a wheel chair, that chair had to be taken up in a lift to the Refectory of the London School of Economics so that old students might greet him at tea. It was in dealing with adolescents and young adults that he was at his happiest and best. His old students are a considerable proportion of the teachers of geography in schools and colleges in Britain, and he extended his influence to U.S.A. during a year's appointment at the university of Chicago.

Of Fairgrieve's part in the counsels of our Association (1909-1953) much might be said. He incurred the responsibility of choosing the writer of this notice for the honorary secretaryship and honorary editorship after the early death of Herbertson. Fairgrieve and I worked in close friendship ever afterwards, and our differences of outlook and method, deep as they were, became a stimulus to thought and effort. He was very terse and even violent in his criticisms, always with an untouchable friendship behind the eager pugnacity. He feared that the Association might be led away from its duty to promote teaching and sometimes his colleagues felt he was a little too inclined to restrict attention to class-room methods. But whenever he saw a new way opening he was a whole-hearted apostle of advance. Visual aids, lantern slides given to the Association, and notably film strips, engaged his attention very specially even after he became an invalid. When it was felt desirable that our magazine should become a quarterly, he generously offered a large guarantee against loss, and this was neither the first nor the last of his offers.

It is a relief to the consciences of his colleagues in the Association that these guarantees did not need to be called up. Fairgrieve's election as President of our Association in 1935, on the occasion of his retirement from the Readership in the University of London was universally acclaimed, and made an occasion for a demonstration of loyalty and gratitude. It was a satisfaction to the officers and members of our Association that Fairgrieve was still able to receive our grateful tribute on the occasion of the Diamond Jubilee Celebration in September, and that he was represented there by his daughter, Mrs. Greenwood.

H. J. FLEURE.

In 1912 I succeeded Fairgrieve as geography master at the William Ellis School, and from then onwards I owed him a great deal for his friendship, for his unfailing support and advice, and for laying very solidly and firmly the foundations of a tradition in geography teaching that made the school known far and wide. His pioneer work and the plans he left behind helped me very greatly in securing, two years later, what I think was the first specially built geography room in the country. I know from his old pupils how much his teaching and inspiration affected their thought and lives, and I was very glad that both Governors and Old Boys were represented at the Memorial Service 41 years after he had left the school.

If I were asked to say in a few words what I consider to be Fairgrieve's outstanding characteristics, I should say thoroughness and patience in examination of details, an uncanny ability to go straight to the heart of any matter under discussion, a directness of expression that tolerated no quibbling or nonsense, and with these a great gift for encouraging and helping those who sought his advice sincerely, especially in connection with experiments and new ways of teaching the subject to which he gave a great part of his life. He left to others the fighting that 30 or 40 years ago had to be done to secure fuller recognition of our subject by the Board of Education, the examining bodies and school authorities, and devoted his own great talents to improving teaching methods, without which, of course, fuller recognition would never have been achieved.

Fairgrieve was a fine geographer and every teacher of geography today, whether he or she knows it or not, owes him a great debt of gratitude.

LEONARD BROOKS.

James Fairgrieve was a truly amazing gentleman. He made in his lifetime a tremendous number of close friends, and they have all at one time or other suddenly found themselves greatly indebted to him. Quietly, unobtrusively, Fairgrieve's boundless generosity would find a way of lending a helping hand. All his students loved him, all of them were his lifelong friends, for he had the wonderful habit of finding time to keep in contact with them all.

For the past fifty years there has been no important activity in the field of geography or education in Britain in which J. F. has not played an active and significant part. In most cases he worked quietly and cleverly behind the scenes "sowing seeds" as he used to say. His home and his office saw a constant stream of people who sought his advice. None ever went away empty, for contact with Fairgrieve was always stimulating, inspiring, refreshing and rewarding.

Throughout his life he sought neither riches nor glory, neither power nor position. He was always sought after, and great honour came his way. There was, however, no honour that he cherished more than election in 1935 to the Presidency of the Geographical Association. The Association was his chief love and in many ways his child. His other great work was the training of geography teachers at what was then the London Day Training College and is now the Institute of Education, University of London.

Fairgrieve's greatness lay in the superb acuity of his mind, which remained bright and clear to the last, his infinite capacity for hard work and his boundless enthusiasm for everything he undertook. Moreover, he had remarkable foresight and vision. When he took on the task of training teachers of geography in 1912, he realised at once that his efforts would be far more successful if good textbooks could be put in the hands of children and teachers. With Ernest Young he produced a fine series of textbooks which rescued geography from physiographic "dry bones" and gave it human significance. His philosophy is seen at its best in two classic volumes, *Geography in School* and *Geography and World Power*. Although Fairgrieve retired from official positions in 1935 he never ceased working both for the Geographical Association and the Institute of Education. Retirement merely meant that he operated more by remote control than previously. Under his guidance and advice his successors, working in the Training College Group of the Geographical Association and at the Institute, developed schemes of research on the teaching of geography which have advanced significantly present knowledge of teaching methods, not only in geography but in all school subjects.

His passing will be mourned by thousands all over the world. They will remember with deep affection his rare spirit which was at once so wise, so human, so lovable. They will cherish forever the privilege of having known him.

NEVILLE SCARFE.

As a student, my first impressions of James Fairgrieve were of his somewhat unorthodox appearance, his long and always unbuttoned overcoat, his quiff of grey hair which he constantly tugged, and his little nervous cough when lecturing. But these early student impressions soon gave way to a recognition of his extraordinarily vivid and penetrating mind, his amazing power of exact description, his deep understanding of people and above all, his pioneer spirit which had played such a great part in the development of geography as a

discipline and in the teaching of geography in school. As a teacher, he brought to bear in the classroom an intense love and knowledge of children and a remarkable feeling for geography as a medium of education in the widest sense. He was able to arouse in his pupils and students, his own sense of original research based on a critical and inquiring mind and an intense love of the countryside.

Fairgrieve's personal influence on his students, springing as it did from an intense affection for his own home and family, was not limited by time or space. His immense industry and enormous correspondence kept him in touch with students all over the world, and his house at Christmas time, decorated by hundreds of Christmas cards, was a memorable sight. His name has become a legend at the Institute of Education and indeed wherever the Institute's students are to be found throughout the world.

R. C. HONEYBONE.

A memorial service to James Fairgrieve was held at Christ Church, Woburn Square, on Wednesday, October 21st. A large gathering of former students and friends attended, including the President of the Association (Dr. Howarth), the President-elect (Professor Wooldridge), the Chairman of Council (Professor Fleure) and the Honorary Secretary (Dr. Alice Garnett). The service was conducted by Rev. A. J. Trillo and the address was given by Rev. J. R. Gibbs.

A photograph of the late James Fairgrieve appears between pp. 264 and 265 of this volume.

MISS BLANCHE HOSGOOD

Members of the Association will hear with great regret of the death of Miss Blanche Hosgood, who was head of the Department of Geography, Bedford College, University of London, for nearly 30 years.

Miss Hosgood received her training in geography at Oxford under Herbertson and gained the Diploma with Distinction in 1914. Thereafter she gave herself to Bedford College, building up a department that by 1934 had become one of the biggest for Honours students in the country. She published little, and was never conspicuous at meetings of geographers but was content to be a stimulating and exacting teacher with much originality in her methods. She never tolerated poor work yet she gave to each of her students, of whatever ability, her full interest and attention. She was never too busy to discuss with a student any problem, academic or otherwise. Among the earlier pioneers of geography in this country she was in many ways unique, and her personality and her industry will long be remembered by all who came in contact with her.

DORA K. SMEE.

H. A. P. JENSEN

The news that Hereward Jensen had met with a fatal accident on May 11th, 1953, came as a grievous shock to his wide circle of friends. He was so full of the zest of living that it is difficult to realize that his stimulating and enlivening presence will not be with us again.

After spending his school-life at Oldershaw Grammar School, Wallasey, under the headship of A. B. Archer a nursery of geographers of distinction, he graduated at Liverpool. His dissertation, presented for Part II of the degree course, was entitled "A Geographical Study of the Dates of Arrival of Migrant Birds," and showed clearly where his interests lay, as did a later paper published in *Geography* (1946), "The Promotion of Field Studies." Professor Roxby once described him as "a naturalist in the complete sense of the word." He spent the succeeding three years as a member of the Naval Intelligence Division at Cambridge, where he contributed to a number of the Admiralty Geographical Handbooks: he subsequently became a member of the staff of the Department of Geography at Manchester University, and then served for a short time at the Joint Intelligence Bureau of the Ministry of Defence. Finally, he found his true métier as physical geographer with the Nature Conservancy. Here his joyous interest in his surroundings had full scope, and he was actively pursuing a number of lines of research of both practical and academic interest, including the forms of sand-dunes, salt-marsh development (particularly in the Dee estuary), and the problems of flood-protection in eastern England. He was a man of great charm: tall, well-built and good-looking, with an exuberant and sometimes mischievous sense of humour, his radiant personality endeared him to a wide range of friends. He was only 32 years of age; to his widow and two small sons we extend our deepest sympathy in their irreparable loss.

F. J. MONKHOUSE.

GEOGRAPHICAL ASSOCIATION

ANNUAL CONFERENCE

The Annual Conference will be held in the London School of Economics from December 30th, 1953, to January 2nd, 1954. Members desiring tickets for the dinner, excursions, etc., should inform the Hon. Conference Organiser as soon as possible. The programme has already been sent to members.

NOMINATION OF NEW MEMBERS OF COUNCIL

Four new members of Council to replace retiring members are due to be elected at the Annual General Meeting to be held on December 31st, 1953. Nominations should be sent to the Hon. Secretary, headquarters, signed by four members of the Association, not later than December 15th. The persons so nominated must have expressed their willingness to serve on Council.

ANNUAL CONFERENCE TEA

Donations from non-metropolitan members who attend the Annual Conference, or from branches, will be gratefully received to meet the costs of one of the teas held in the course of the Annual Conference. The Association is greatly indebted to the Westminster Branch for its long continued hospitality in providing one of the teas on this occasion.

MEMBERS' SUBSCRIPTION RATES

The officers of the Association are striving to avoid the necessity to increase the rates of members' subscriptions, but in view of continually rising costs, the matter has been placed on the agenda of the Annual General Meeting for discussion.

We would remind members that a further response to the appeal to agree to covenant subscription payments for seven years would go a long way to relieving our financial burdens. Some 10 per cent. of our adult members have so far agreed to covenant subscriptions, yielding an income of about £120. An increase of this proportion of covenanted subscriptions would undoubtedly help in the present financial situation. May we urge members to apply to headquarters for the appropriate form of deed of covenant to enable us to increase our claim for refund of income tax on their subscription payments?

FIELD TECHNIQUES IN GEOGRAPHICAL STUDY AND TEACHING

SUMMER SCHOOL, 1953

The Association places on record its thanks to Professor S. W. Wooldridge and Dr. E. W. H. Briault for their work in organising a very successful Summer School at Pulborough. The following report is submitted by Miss M. Oughton, Assistant Secretary of the Association, to whom we are indebted for the efficient administration of accommodation and excursion arrangements.

From August 25th to September 4th this year, 58 residents followed a course of field study in West Sussex, using as their headquarters Lodge Hill, a residential centre of the West Sussex Education Authority. Professor S. W. Wooldridge directed the field work undertaken during the first half of the course, "The Study of the Region," with the able assistance of Mr. E. M. Yates. The intimate acquaintance of these leaders with the geography of the western Weald gave the members of the course the opportunity to study in detail, during coach and walking excursions, various aspects of the region itself; at the same time, the experience of working in the field with university teachers provided not only a stimulating mental refreshment but also the chance to observe methods of leading advanced field study groups and of demonstrating in the field local and regional relationships. During the four day excursions made by the two parties into which the school was divided, the field studies included traverses of the Weald and the South Downs between Blackdown and Chichester in the west and St. Leonard's Forest and Highdown Hill and Devil's Dyke in the east, the distribution and siting of settlement north of the Downs and the geomorphology and settlement features of the Arun Valley south of Pulborough. Brief recapitulation of the day's work was made each evening, developing at times into discussions on relevant (and sometimes irrelevant) points according to the interests of the students. There was opportunity also for individual practical map-work or reading.

To lead a day's walking excursion, studying in greater detail the characteristics of vegetation, agriculture and settlement on the contrasting outcrops

from the Lower Greensand to the Chalk scarp-face, Mr. G. F. Hutchings, warden of Juniper Hall Field Centre, joined Professor Wooldridge and Mr. Yates. Later he gave a talk on the study of vegetation in local geography field work.

On the Sunday, after a short local outing to demonstrate the use of the soil auger and pH indicator, Dr. E. W. H. Briault took over the direction of the second part of the course concerned with practical teaching techniques that can be successfully used in school field work. With Mr. R. C. Kiloh as his energetic assistant, he set the school to work, in small groups, upon a series of practical outdoor exercises for which the now familiar local area served as an excellent and accessible laboratory.

Two long transect studies were made, covering north-south strips from the Weald to the coast, finishing respectively at Selsey Bill and Shoreham. The observations made by the small parties on the sections of these transects were later worked up into illustrated and annotated adjoining sheets and were reported on briefly (it is hoped to exhibit the transect sheets during the Annual Conference in London). After a further day excursion to Mount Caburn and Lewes, Dr. Briault and Mr. Kiloh demonstrated examples of practical work in simple surveying of valley cross-sections, stream gradient surveys, slope measurement, landscape sketching and a type-study of a settlement. The exercises were worked out at selected places by the groups (involving wet foot-work for the individuals acting as measuring poles in the stream surveys!) and again the results were recorded and compared as finished diagrams and sketches, and ideas and suggestions were exchanged. At the end of this energetic week most of the members of the school used the coach transport provided to convey them and their luggage back to London.

To books sent from the Association library was added a collection of local references kindly loaned by the West Sussex County Library; for this extension of the facilities for local study we were most grateful to the County Librarian. At Lodge Hill, the accommodation could not have been more comfortable, and the co-operation and patience of the secretary, the matron and the staff were valuable assets to the smooth running of the course. We are especially grateful to the staff of the school, Professor Wooldridge, Dr. Briault, Mr. Yates, Mr. Kiloh, and the visiting lecturer, Mr. Hutchings, for their thoughtful planning of an integrated course, their careful advance preparation and their intense active interest in the work and in the problems raised by several teachers. The late, informal "gossips" were not the least rewarding of the many discussions.

Lastly we should record our appreciation of the delightful landscape of West Sussex in which we worked and of the excellence of the weather which prevailed almost unbroken throughout the course, giving us fine visibility and sunshine and adding to the pleasure of studying geography in the field.

SPRING CONFERENCE, 1954

The next Spring Conference will be held from April 20th to 24th, 1954, at Exeter, under the direction of Professor A. Davies. The programme will be included with the January issue of *Geography*.

SUMMER FIELD MEETING, 1954

Preliminary arrangements are in hand for the organisation of a summer field meeting at Sistrans in the Innsbruck district of Austria, under the leadership of Mr. R. C. Honeybone, Lecturer in Geography at the University of London Institute of Education. Provisional dates for this meeting are August 11th to 24th, 1954. Members who may be interested in joining the group should write to headquarters as soon as possible to enable us to proceed with estimates of accommodation requirements. A further announcement will be made in the January issue of *Geography*.

SECOND INTERNATIONAL CONFERENCE OF TEACHERS OF GEOGRAPHY

The Netherlands Geographical Association (Geografische Vereniging in Nederland) informs us that arrangements are being made to hold the second international conference from August 22nd to 29th, 1954, at Drakenberg, near Hilversum. A programme of lectures, discussion-sessions and excursions is envisaged. This meeting offers a unique opportunity for discussion and interchange of ideas with geography teachers from many other countries. We should like to hear from members interested in attending the conference; it may be possible to make convenient arrangements through headquarters for party

travel to the Netherlands. Fuller information regarding the programme and costs will be published later.

FURTHER EDUCATION IN GEOGRAPHY

Members interested in the work of the newly formed section for Further Education in Geography are asked to get into touch with the Chairman (Mr. Wallace, 5, Angus Road, Worthing) or the Secretary (Mr. G. Lighton, Walford Park Avenue, Ashton-on-Ribble, Preston), as soon as possible, if they have not already done so.

BRANCH NEWS

We are glad to announce the revival of the Glasgow Branch of the Association, and urge members in that locality to lend their support to its activities. The secretary to whom enquiries should be addressed is Mr. J. McGruther, Albert Senior Secondary School, Springburn, Glasgow, N.1.

The opening of a new branch in south Durham is being considered. This branch is proposed to be centred at Stockton-on-Tees, and members in that locality interested in the project are asked to get into touch with Mr. S. G. Cooke, The Grammar School, Norton Road, Stockton-on-Tees without delay.

LINCOLN BRANCH PUBLICATION

Following the Spring Conference held at Lincoln in April, 1953, the Lincoln Branch has sponsored the publication of a booklet, *Lincoln—a geographical excursion* with maps and explanatory notes by Professor K. C. Edwards. These formed the basis of an excursion in Lincoln City made by members of the Spring Conference, and illustrate the site and stages of growth of the settlement. The booklet can be obtained from The Geographical Association, c/o Park Branch Library, Duke Street, Sheffield, 2, or the Lecturer in Geography, Lincoln Training College, Lincoln, price 1/3d. including postage.

EARLY GEOGRAPHY TEXT BOOKS

We have been endeavouring for some time to collect in the Association's library a representative selection of school text books in geography. There already exists a collection of such books published since the late 1920's. There are, however, few of the earlier books and none of the 19th century books mentioned in the articles in this issue by Professor Fleure and Mr. Warrington.

We should be very grateful therefore to members who would be willing to deposit in the library early geography reference and text books which would make desirable additions to and help to complete such a collection which will be of great value and interest to geographers and teachers of the future. All such gifts would be acknowledged in these pages.

THE CHAIRS OF GEOGRAPHY AT LEEDS AND KHARTOUM

We record with regret the resignation of Professor A. V. Williamson from the chair of geography in the University of Leeds many years in advance of normal retiring age. Although his health does not permit him to carry any longer the burdens of a university administrator and Head of Department, we believe he has still much to contribute to our subject and wish him a happy and productive retirement. He is succeeded as Head of the Department by Professor R. F. Peel to whom we tender the Association's warmest congratulations and good wishes.

A Chair of Geography has been created at University College, Khartoum. Dr. J. H. G. Lebon, formerly of the College of Arts and Science, Baghdad, has been appointed to this new post, and took up his duties in August. Among his colleagues in the Department of Geography are Mr. K. M. Barbour, M.A. (Oxon.) and Hassan Ibrahim Hassan, M.A. (Birm.).

BRITISH ASSOCIATION TROPICAL AFRICA RESEARCH COMMITTEE

Since the war a Research Committee of Section E (Geography) of the British Association, of which Professor A. G. Ogilvie is Chairman, has tried to make contact with those who are interested in geographical research work in tropical Africa. The Committee now has a register of about 150 geographers in educational, administrative and other posts in Africa and in Britain, and has compiled a list of the work being done by 50 or 60 of them. It hopes to enlarge and complete this list for publication during the coming year and, at the same time, to prepare an annotated bibliography of some of the books and papers concerned with

tropical Africa that have appeared since the war and are of interest and use to geographers.

The success of a project of this type must depend largely on the co-operation of many individuals. If you are interested in the Committee's work and feel that you can assist it in any way, or if you wish your name and the subject of your research to be included in the Committee's list, please write to the Secretary, R. W. Steel, School of Geography, Mansfield Road, Oxford, preferably before the end of March, 1954.

U.N.E.S.C.O. BOOK COUPONS

From November 2nd, 1953, U.N.E.S.C.O. Book Coupons may be obtained from the United Nations Association, 25, Charles Street, London, W.1. The Coupons may only be used for the purchase of works ("books and publications") of an educational, scientific or cultural nature by individuals or institutions from member-states of U.N.E.S.C.O. participating in the scheme.

ROYAL TOUR TO AUSTRALIA : VISUAL AIDS

We have been informed that films, filmstrips and wallcharts illustrating the countries which the Queen will visit on the Royal Tour to Australia and New Zealand are listed in a special Information Sheet prepared by the Educational Foundation for Visual Aids, and available free of charge. Teachers who are planning lessons or class projects based on the Royal Tour will find here many suggestions for illustrations of all kinds. Requests for the Information Sheet (with 1½d. stamp enclosed) should be addressed to the Educational Foundation for Visual Aids, 33, Queen Anne Street, London, W.1.

INTERNATIONAL GEOGRAPHICAL UNION COMMISSION ON THE TEACHING OF GEOGRAPHY

The following notice has been received from Dean Neville Scarfe and is printed in full for the information of teachers and other readers of *Geography*.

"The International Geographical Union Congress meeting in Washington, D.C., in August, 1952, set up a six member commission to study the problem of geography teaching in schools. The Commission is to act until the next congress and will receive assistance from six consultants (Dr. E. W. H. Briault, England; Mr. R. Fichoux, France; Mr. J. Reumert, Denmark; Dr. A. Sømme, Norway; Dr. C. Kohn, U.S.A.; Dr. Brouillette, Canada). The Commission members are Dean N. V. Scarfe (Chairman), Canada; Dr. T. F. Barton (Secretary), U.S.A.; Dr. C. A. Alagoz, Turkey; Dr. I. R. Khan, Lebanon; Dr. G. M. Hickman, England; Dr. C. D. Carvalho, Brazil.

A plan of work has been established and some of the objectives clarified. A final report setting out the case for geography in school and suggesting methods of teaching will be written after the collection of information from as many sources as possible.

To begin with members of the Commission are being asked to comment on the following statements and points of view. It occurred to them that readers of this journal might also be kind enough to comment thereon and so help the Commission with its work. Dean N. V. Scarfe, Faculty of Education, University of Manitoba, Winnipeg, Canada, would be glad to receive your comments.

(1) *Objectives of the Commission.*

1. To investigate and *evaluate* the present status of and recent trends in the teaching of geography at the elementary and secondary levels. In the light of the findings to recommend and demonstrate what the geography programme of these levels should be and how it may be best implemented in the curriculum and in the classroom. One of the primary functions would be to define the relation of geography to the courses in social studies and general science.

A study of this type is especially appropriate now for a variety of reasons, some of which are:—

1. To meet the recent upsurge in interest in and public demand for better geography.
2. To reinforce the teachers of geography whose programmes are now good.
3. To offer guidance to thousands of teachers who rightfully look to us for help and who may have had little or no training.
4. To provide an authoritative international statement for the guidance of administrators of education.

(2) *The case for Geography as a major integrating science in the curriculum.*

School work as presently conceived in many countries seems to over-emphasise sociological factors and underemphasise the fundamental limitations of the

physical environment on human life. Man tends to be separated from nature : the humanities separated from the natural sciences. Geography is disintegrated into human studies and earth science. Some aspects of geography are made the humble handmaiden to history, others a minor part of general science. Geographers have never disagreed with the idea of correlating various areas of knowledge. That is the major function of their subject. Scientists in their studies naturally tend to neglect the effect of the human element on nature, while sociologists equally naturally neglect the effect of nature on human life and activity. The function of geography is to make good this neglect.

Geography is a different discipline from either social science or general science, with a distinctive point of view. Its methods and study, however, are not noticeably at variance with the best in either for it is essentially scientific and scholarly in its approach.

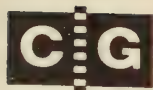
Geographers do not think of any particular fact or item of knowledge as being the special preserve of any one subject. Facts are quite neutral. It is only when they are expertly handled from a particular point of view that they become part of a special subject. Geography is distinct from history or biology not so much because it deals with a different set of facts but because it views these facts from a distinctive point of view and for a special purpose.

Geographers do not agree with the advocates of social studies that the whole answer to the problems of the world lies in a thorough knowledge of human psychology, or a free study of traditions, customs, mores, religions, or a complete study of the past, or even an extended survey of economic conditions, or any combination of all of these. Likewise they do not believe that technological progress or scientific advancement or nature study offer any complete salvation either.

No doubt science and sociology offer partial solutions but there is an additional, fundamental and necessary key to the understanding of human existence. This is the study of man's wiser use of land and the development of great goodwill towards others. Goodwill is born of a better understanding of the need men have for adjusting their lives to the conditions of the place in which they live or changing the environment as much as possible to meet their needs. In other words the study of man-land relationships in the wide sense in which modern geographers view them offers a fine basis for integrating the whole school curriculum and thus preventing undue concentration on those relationships which over-emphasise the irrational behaviour of men as revealed by sociological study, or those which over-emphasise the importance of scientific causality.

Geography to-day suffers because it has been badly taught, or more often because an old-fashioned form of geography has been taught in school. Geographers have rarely entered the field of specialised education or become educational administrators. Those who influence public education have therefore either unwittingly neglected geography through ignorance or deliberately depressed it through prejudice. Ignorant, therefore, of the function and purpose of modern geography, they have sought some other way of integrating a curriculum. Most of them have been historians or scientists and therefore social studies or general science have evolved by disintegrating geography. They have tended to extend the "empire" of the historian to include some facts which might be called geographical, and some maps, but they have rarely departed from the historians' point of view. They have taught about mountains and rivers and climate but always to illuminate history. This is very different from the way in which a geographer views the same facts because his purpose, point of view, and his conclusions are different. In the same way biologists have extended their "empire" to include physical and economic geography but they do not view the problem from the angle of man-land relationship any more than the historian does. Geography is not to be confused with history or biology simply because it deals with a similar set of facts. All subjects have many facts in common. Unless a geographer teaches social studies or general science there is rarely any true geography taught although quite often facts about the earth and maps are used. Thus many people falsely suppose that geography and history or geography and science are being integrated or fused. There are three, not two, main integrating curriculum areas : (1) Social Studies, (2) General Science, (3) Geography. Geography, the means by which (1) and (2) may be integrated, has been sadly neglected.

Geography has been given little publicity. No one has been able to refer to any authoritatively agreed statement about geography. The time has arrived for geographers to put their philosophy or point of view more clearly and forcibly before the ordinary public, and particularly educators. No better body than the I.G.U. could be found to do that."



Geography in colour

A new series* of Common Ground filmstrips reproducing colour photographs of life in different parts of the world. The series is designed especially for the upper forms of Primary and lower forms of Secondary Modern Schools. Titles so far published include :

South Sea Island by G. B. Milner
Life in New Zealand by G. M. Hickman
Mountain Life in High Asia by T. Weir
Village Life in Northern Nigeria by A. W. Bartram
Farmers and Boatmen of South China by E. Thorndike

Price 25/- each complete with full teaching notes.

* Recent additions to other well known Common Ground series in black and white are :

Physical Geography—**Desert Landforms** by W. G. V. Balchin,
The Landscape of Glacial Erosion by A. Coleman

Regional Geography of the World—**North German Lowlands**
by R. C. Honeybone, **The Rhone Basin and South West France**
and **Central Massif** by J. G. Rushby, **Italy** by G. W. Newberry,
North America : Northern Forests and Arctic by G. M. Hickman,
South America : Ecuador, Colombia and Venezuela by
E. W. Shanahan, **Mediterranean Australia** by J. H. Hallam

Price 16/6d. each complete with full teaching notes.

Available to schools in the United Kingdom on seven days sale or return from the main distributors :

The Educational Supply Association Ltd.,
181 High Holborn, London, W.C.1

Published by Common Ground (1951) Ltd,
44 Fulham Road, London SW3

THE TROPICAL WORLD

Its Social and Economic Conditions, and its Future Status

By

Pierre Gourou

This is the second volume in the series **GEOGRAPHIES FOR ADVANCED STUDENTS** whose general editor is Professor Beaver M.A.

It is the first English translation from the original French *Les Pays Tropicaux* a well-known work about the tropical and equatorial countries by Professor Gourou. The contents cover such ground as, Density of Population—Unhealthiness of the hot, wet lands—Tropical Soils—Characteristics of tropical agriculture and their consequences—Stock-rearing—Problems of food-supply—Industrial possibilities—Possibilities of agricultural evolution—The hot, wet lands of Asia—Problems due to European intervention.

This book, fully illustrated with maps, charts and photographs, will be of particular interest to students of geography and tropical medicine and to all administrators and agriculturists.

18s. net.

PHYSICAL GEOGRAPHY AND CLIMATOLOGY

By

N. K. Horrocks B.Sc.

With a foreword by Professor S. W. Woodridge, D.Sc.

The purpose of this book is to provide a comprehensive account of the several aspects of physical geography. It is intended primarily for pupils in Secondary Grammar schools who are preparing for an examination in Geography at an advanced level, and also for those pupils who will reach scholarship standard.

The book is divided into SIX parts :—Structure of the Earth's Surface—Earth Sculpture—Meteorology—Plants and Soils—Climatology—Oceanography. It contains diagrams, photographs and a comprehensive index.

18s. net.

LONGMANS

6 & 7, Clifford Street, London W.1.

Advanced Geographies

A GEOGRAPHY of EUROPE

Edited by **GEORGE F. HOFFMAN**

Professor Hoffman, with the assistance of nine collaborators, has produced a comprehensive and up-to-date regional geography of the whole European Continent. This most important book is probably the best and fullest study in English of its subject.

With many illustrations, maps and statistical tables.
52s. 6d.

GEOGRAPHY in the TWENTIETH CENTURY

Edited by **GRIFFITH TAYLOR**

This study of growth, fields, techniques, aims and trends in geography is the work of twenty-two authors, each of whom is a specialist in the section with which he deals.

2nd edition, revised and enlarged, with many illustrations.
35s.

THE SKIN of the EARTH

A. AUSTIN MILLER

A guide to practical work and an introduction to research methods in Physical geography, through about 100 exercises in the examination, analysis and correction of geological, relief, meteorological, climatic and hydrological maps, charts and statistical data. No advanced mathematics are needed.

With 67 illustrations.

21s.

THE CHANGING MAP OF ASIA

A Political Geography.

Edited by **W. G. EAST** and **O. H. K. SPATE**

Since the first edition of this book was published various changes have taken place within the map of Asia, with the result that certain portions of the work have been re-written, and statistics revised.

With 33 maps. 2nd edition, revised.

25s.

METHUEN & CO. LTD., LONDON, W.C.2

Oxford Visual Series

THE ATMOSPHERE

Written and illustrated by PETER HOOD.

Pp. 64. *Size* $8\frac{1}{2} \times 6\frac{3}{4}$ ins *In blue cloth boards*
with aluminium lettering 8s. 6d. net

This was the second volume to appear in the OXFORD VISUAL SERIES, a series of books on subjects connected with physical and natural science. The books are very fully illustrated and designed primarily for those pupils of 13-15 years who want to have exact and serious information, but who learn better if they can see ample illustrated material as well as reading matter.

'... The photographs are good and the diagrams clear and convincing. The book forms an attractive introduction to meteorology and may also be handled with pleasure by those who already have some acquaintance with its mysteries.' *Geography*

'Without doubt, the book will appeal to many older students as well as to the juniors for whom it is primarily prepared. Included in the contents are the following topics: Clouds and their formation, the Weather in its many varied forms, and meteorological phenomena. There is also a page devoted to brief details of selected books for further reading on the subject. Altogether this is a useful book for all young students of science and geography.'

School Science Review

'The predominant impression left in my mind after reading this book is one of astonishment at the great amount of difficult matter condensed into so few words, and at the same time expressed in such clear, simple terms ...'

Journal of the British Astronomical Association

The first volume in this series was EXPLORING THE HEAVENS.
The third volume, which is due to appear shortly, will be HOW
THE EARTH IS MADE. *Both these volumes are also by* PETER
HOOD.

OXFORD UNIVERSITY PRESS

Education Department

Oxford

REVIEWS OF BOOKS

WITH very rare exceptions, books reviewed in this journal may be borrowed from the Library by full members or student library members of the Association.

Our attention has been drawn to an error in *Geography*, vol. xxxvii, 1952, p. 56, where the price of *Fundamentals of Economic Geography*, Bengtson and Van Royen, was incorrectly shown as 7/6; it should read "42/-."

The agent in the United Kingdom for *Freshwater Fish and Fishing in Native North America*, E. Rostlund, reviewed on p. 200 of part 3 (July) of the current volume, is the Cambridge University Press and the English price is 26/-.

A Land. J. Hawkes. 14.25 × 22 cm. 248 pp. London. The Cresset Press Ltd. 1953. 21/-.

It is hardly likely that this notice should be the first to draw any readers' attention to *A Land*, for it has been published these two years or more and its merits have been very widely recognised, and deservedly. Nevertheless, it may be permitted to urge any geographer who has not read it, to do so, for that union of geology and archaeology under the authoress' skilled hand has yielded a geographical account of Britain which will not be easily supplanted. The whole physical story of the island from Pre-Cambrian to present times is delineated, together with the appropriate pictures of life at successive periods, down to the activities of modern man (and that last picture, as the writer candidly presents it, is perhaps the least pleasing). The book is well on the way to becoming a classic, and the fact that a work of such highly specialized character can be made to hold the attention of so large a body of general readers as this work has, is a gratifying tribute to its high literary quality. The style of the text, with its clarity, beauty of phrasing, and (on fitting occasions) humour, is as the poles apart from that of the average textbook.

O.J.R.H.

The Surface Water Year-Book of Great Britain. 1937-45. Ministry of Housing and Local Government. 20 × 31.5 cm. xii + 134 pp. London : H.M.S.O. 1952. 17/6.

One of the responsibilities of the Inland Water Survey Branch of the Ministry of Local Government and Planning is the collection and dissemination of information about the volume and quality of Britain's surface water resources and the publication of this year-book, containing such basic information, renders an essential service to all concerned with the use of water for industrial or domestic purposes. In addition, the extent of the information and the manner of its presentation make the work of real interest to geographers. The statistical records are arranged on the basis of drainage areas that are soundly determined except for the separation, in a Douglas group, of drainage that physically belongs partly to the Mersey and Irwell and partly to the Ribble drainage. For each area brief indication of the surface geology prefaces the monthly values of average and extreme discharges, run off and rainfall; thus there are quantitative data for a comparison of the behaviour of rivers of different types and also for comparison of various sections within the same river basin.

N.P.

British Overseas Trade from 1700 to the 1930's W. Schlote. Trans. W. H. Chaloner and W. O. Henderson. 15 × 22.5 cm. 181 pp. Oxford : Basil Blackwell, Ltd. 1952. 22/6.

A quantitative analysis of the development of British trade is not an easy task in view of the uneven quality of the available statistical material. Dr. Schlote wisely devotes nearly half of his book to a discussion of the statistical methods he proposes to use, before embarking on an analysis of British trade in relation to the economic climate and geographical conditions prevailing from 1700 to the 1930's. For the geographer, the book has much to recommend it as an introduction to the problem of British trade development. The statistical method is perhaps open to criticism and the significance of the subsequent analysis is thereby affected, but, in the main, it confirms the main trends as we already know them. The analysis outlines periods of growth, then considers development in relation to periods of

prosperity and depression, price levels, National Income, and industrial production. Trade is then considered on a commodity basis and the author devotes himself finally to its geographical orientation.

This last section is brief and the least satisfactory in the book. Britain's trade with other countries is considered first on a continental basis and subsequently in relation to "industrial" and "agrarian" countries, and to the Empire. One reads with some misgiving that "it is of greater economic significance if we analyse the territories . . . on an economic (rather than a geographical) basis, that is to say by industrial and agrarian regions (rather than by continents)." (p. 81, Translators' brackets.)

The subsequent discussion, which fails to define "agrarian" countries or regions and forces one to assume that this omnibus title refers to the rest of the world apart from "industrial Europe and the U.S.A.," produces results of only limited value. The text is aided by 43 graphs and tables and contains good bibliographical notes. The English translation has been handled sympathetically and ambiguities and obscure points are clarified. K.R.S.

The English Village. (Home University Library). W. P. Baker. 10.5 × 17 cm. viii + 224 pp. London: Oxford University Press, Ltd. 1953. 6/-.

Mr. Baker has written an eminently readable and, in most ways, admirable book on the English village. Planned primarily for the general reader, it is a modern social, economic, educational and administrative study. A well assembled body of facts and intimate personal knowledge of rural life have, with the help of a fluent style, contributed to its undoubted charm. The outstanding chapters are, perhaps, "The Village at Work" and "Education and the Countryman." A good, historico-geographical introduction, unfortunately lacking, would have put the whole book on a sound foundation. Chapter I contains attempts at classification which are unsatisfactory and superficial and the bibliography—from Mr. Baker's special angles a very useful one—largely omits geographical and historical sources. But these are criticisms which are unimportant as compared with the general excellence of a volume which is a valuable addition to the social literature of the village. D.S.

London. Jacques Boussard. 16.5 × 24 cm. 209 pp. London. Nicholas Kaye, Ltd. 1951. 21/-.

This book is attractively printed by a heliogravure process and has as much space devoted to photographs as to text. It is disappointing to find that this first impression hides a variable standard of photographic illustration and a most surprising selection of contents. As a tourist guide to London, it has a somewhat old-fashioned emphasis; both the description and the photographs are almost entirely of buildings, monuments and museums. Many pages of the text are devoted to simple description of the principal exhibits in art galleries and museums. The remainder of the book is occupied by descriptions of the monumental architecture of Tourist London, and no serious attempt is made to portray everyday London life and institutions. The photographs are by far the best part of this very uneven book. K.M.C.

The Cinque Ports. R. F. and F. W. Jessup. 13 × 19.5 cm. 128 pp. London. Messrs. B. T. Batsford, Ltd. 1952. 9/6.

Without pretending to offer a full study of the historical geography of the Cinque Ports, the present survey offers a concise account of the chief features of topographical interest which will be a useful introduction to geographers interested in, or visiting, the coasts of Kent and East Sussex. A short general historical summary is given and some 52 well chosen illustrations assist the authors to capture the atmosphere of each Head Port. While references are made to the significance of physical factors in the rise and decline of these ports, the especially important coastal changes receive rather superficial treatment. This is especially evident in the section on Dungeness (pp. 81, 85). Three small sketch maps are included, but the absence of detailed maps of the site and plan of each port is a deficiency which handicaps the textual treatment. M.J.W.

Berkshire. (County Book Series) I. Yarrow. 14 × 22 cm. viii + 280 pp. London: Robert Hale, Ltd. 1952. 18/-.

Ian Yarrow's book is a treasurehouse of the "Dim and Dusty Past" and the "Not so Dusty Past" of Berkshire. Apart from "Beer and Biscuits" he says little about modern industries, and this is deliberate. Berkshire has been the author's happy hunting ground for Natural History expeditions since his childhood days, and he has much to say about such things as flowers, birds, bees and bats. As he describes the scenery he conducts us through the various periods of history from prehistoric times to the present day and giving here and there vivid illustrations of incidents, people and famous buildings. His final section, "The Open Road" gives a series of routes for the diligent motorist; this is the best part of his book the worth of which can only be fully appreciated after reading carefully all that goes before it. The book contains a very useful bibliography and several excellent illustrations. The map is rather poor, but the author assumes that his readers will have the common sense to consult the appropriate O.S. maps.

J.E.M.

The Emerald Isle. The Windows on the World Series. Geoffrey Taylor. 14.5 × 22 cm. 158 pp. London. Evan Bros., Ltd., 1952. 12/6.

This is not a travel book: one might describe it as an anthology. "Ireland is unique among European nations in having no history," is prelude to chapters entitled "History" and "More History." Indeed, the text deals mainly with the past, as portrayed by Camden, Spenser, Young, Keats and others. The author's personal reminiscences have little interest for the general reader; he should have essayed a fuller picture of "Ireland To-day," the subject of his final chapter. In notes on modern Irish writers, the greatest of all—Shaw—is inexplicably omitted. There are some misprints: e.g., Irishmore (Inishmore), vermillion, Sommerville, delapidation, geologist. The 17 illustrations are excellent.

E.V.L.

The British Isles. J. F. Unstead. 14 × 22.25 cm. xii + 292 pp. 1949. 9/-.

Europe. J. F. Unstead. 14 × 22.25 cm. xi + 404 pp. London. University of London Press Ltd. 1953. 21/-.

These two text-books whose first editions were reviewed in *Geography* in Vol. XX, 1935 and Vol. XXV, 1940, respectively, are already well-known. Professor Unstead's main contribution to geography in these volumes, his methodical development of the regional concept, remains intact. *The British Isles* was revised to take account of population, social and economic changes due to the war so far as was possible in 1949. The revision of *Europe* was wisely deferred until three years later so that the impact of the war on European geography could be seen in better perspective and more extensive alterations have been made in this volume. Parts I and II have been corrected and brought up-to-date. Part III, dealing with the individual states and their political geography, has been entirely re-written and in addition to being an integral part of the book provides valuable background material for discussions on current affairs in Europe.

A. J. H.

Europe. S. Van Valkenburg. 15 × 23.5 cm. xiv + 826 pp. London: Chapman and Hall, Ltd. New York: J. Wiley Inc. 1952. 60/-.

It is appropriate that this book should be dedicated to Ellsworth Huntington, co-author of the first edition, but when the reader learns from the first few sentences of the preface that the present authors "forthrightly eschew . . . the philosophy of geographical determinism" he may well expect to find radical changes in the first part of the book where Huntington's ideas were most apparent. His expectations will not be fulfilled for, although the book has been revised throughout, the main changes are in the regional chapters, especially and very properly in those dealing with Germany, Poland and eastern Europe. These have been entirely re-written to take account of the political disruptions of the last two decades. Most other chapters have been re-ordered, extended and brought up-to-date where necessary, but their content is still substantially unchanged. The book remains a source of stimulating ideas rather than of carefully reasoned explanations of the features described. Nevertheless the addition of post-war

statistics and summaries of recent developments in the geography of Europe amply justify this new edition, the whole being much improved by the inclusion of 34 photographs and many new maps and diagrams. A.J.H.

Germany : a general and regional geography. R. E. Dickinson. 16 × 23·5 cm. xxiii + 700 pp. London. Methuen & Co., Ltd. 1953. 50/-.

This work fills a glaring gap in our libraries. It is by far the most valuable and comprehensive work on the geography of Germany printed in the English language and will remain the standard work for a generation to come. It was written at a most interesting stage in German fortunes and will have unique historic value.

Professor Dickinson has made Germany his special interest. He has known it at first hand for over twenty years, and he lists twenty pages of bibliography, including maps, books, and articles, almost all in German, which have been studied in the production of this great work. The treatment is Teutonic in its thoroughness and in its occasional repetition and lack of sequence, but English in its viewpoint and sense of proportion. It is written mainly from the viewpoint of a human geographer whose interests in sociological, historical and political geography ensure a breadth of vision and clarity of judgment which arouse our deepest admiration. For this is no mere compilation. He has drawn heavily on German texts and modern research, naturally, but the conceptions, the sense of evolution and estimates of relationship and events are his own.

The book is divided into six parts: Physical Geography, Peoples, Habitat, Economies, Nation and State, Regions. The first five take up 400 pages and deal with Germany as a whole. The sixth part, a detailed description of the Regions, occupies 266 pages, and this is so finely sub-divided (ten major regions and about two hundred minor regions) that we sense German thoroughness almost in excess, making a compendium.

It is in this part that Dickinson translates, we may think, and compiles rather than creates. The region east of the Oder and Neisse rivers is not treated; perhaps a pity.

The parts are not of uniform quality. The Physical Geography is valuable and thorough, that on Habitat is excellent and the chapters on Nation and State admirably crystallise a complex subject. The Economies of Germany is a mine of valuable information, but the author passes over the traditional regions in favour of his commercial ones, which he distinguished in 1945. It is not a satisfactory alternative, though a fruitful addition.

Minor criticisms spring to mind. There is considerable overlapping because too much detail has crept into the first half of the book which, especially in descriptions of relief, would have been better left to the detailed sub-regions. The systematic, instead of the purely regional, approach has also led to the splitting up of, for example, Hamburg amongst four chapters and six different parts of the book. The excellent index, however, enables the reader to trace these sections rapidly. The monstrous gutting of the German cities is noted.

Only one error of judgment has struck the reviewer. On page 371, the low production in 1946 of the Soviet Zone (35 per cent. of 1936) is attributed to Russian dismantling. It is now recognised that the feverish build up of industrial capacity between 1942 and 1944 (using seven million foreign workers) far outweighed the losses by dismantling and war destruction in Western and Eastern Germany. The low production of 1946 was associated with lack of raw materials, breakdown of traditional and essential industrial links with the rest of Germany and collapse of transport, the Achilles heel of the Nazi war machine.

This admirable work has 121 maps and 32 photographs. If the author never used his pen again this study of Germany would establish his reputation for all time. Professor Dickinson and Messrs. Methuen should receive our warmest congratulations. A.D.

The Ruhr. A Study in Historical and Economic Geography. N. J. G. Pounds. 14·25 × 22·25 cm. 283 pp. London. Faber and Faber, Ltd. 1952. 25/-.

Dr. Pounds's book is designed to attract the general reader as well as students and teachers of geography. Dr. Pounds sets out to account for the distribution of industry in the Ruhr and does so by seeking explanations wherever they are to be found. The physical geography of the Ruhr is not treated as such, but physical conditions, economic and political events are all referred to when they can be shown to have some bearing upon the development of industry. After a brief

introductory consideration of the location and significance of the Ruhr, he discusses its industrial development at the beginning, the middle and the end of the 19th century. With this background he proceeds to examine the present-day coal, iron and steel and transport industries, and concludes with two chapters on problems of social geography and on the significance of the Ruhr in the political economy of Europe. Material for this book was collected partly by first-hand study but is largely the result of extensive reading as the numerous references (some 500 of them) clearly show. The whole is commendably clear and concise and is illustrated by useful maps and diagrams. A.J.H.

Rittersitz und Adliges Gut in Holstein und Schleswig. Forschungen zur Deutschen Landeskunde. Bd. 64. Ingeborg Leister. 15 × 23.5 cm. 137 pp., 40 plates. Remagen. Verlag des Amtes für Landeskunde. DM. 6.—

It is not only the physical nature—polder land in the west, boulder clay hills in the east—which makes for a regional differentiation of Schleswig-Holstein. The theme of this study is to account for another regional difference, the prevalence of landed estates held by noblemen, which gives the characteristic flavour to the landscape of the eastern part of these two provinces, whereas they are notably lacking in the western part. The study, which is very well documented, shows clearly that this dichotomy is a result of different historical development in the western part, an area of early German settlement, from that in the eastern part, colonised former Slav territory. Since the contrast between "original home land" and "colonised territory" is a basic theme of the cultural landscape of the whole of Germany, this detailed study of an area which is in a bridge position between the two is of more than local importance. After a brief introduction, Dr. Leister devotes one section to the development during the middle ages and a second section to the modern period, each being concluded with a concise summary. The appendix, consisting of a "manor court roll," list of estates and a detailed bibliography, is of great value. The illustrations (27 sketch maps, 43 pictures) and, in particular, the air photographs, are to be commended. K.A.S.

Berichte zur Deutschen Landeskunde. Herausgegeben vom Amt für Landeskunde, Zentralarchiv für Landeskunde von Deutschland. 14.6 × 20.5 cm. S. Hirzel Verlag Stuttgart. Vol. 5 (1948) pp. 340. DM 12.— Vol. 10 (1951) 560 pp. + 7 maps. DM 20.—

This German geographical periodical is possibly the least known outside Germany, but it is by no means the least important one. That it is comparatively little known is due to two reasons: its newness and its character. Publication commenced during the war (1941) and after an interruption of four years continued in 1948. The first post-war volume and the next consist of one part only; after that each volume consists of two parts. It is a combination of an academic journal containing research papers and book reviews, with a news letter, references to sources of new statistical data and a bibliography of books, papers and maps. The bibliographic part usually takes about half the contents and is extremely comprehensive, including even unpublished research papers (e.g. doctors' theses). A synoptic table of contents enables one to find quickly everything contained in the bibliographical part. Out of the part devoted to research a few papers picked at random may be pointed out. Vol. 5: R. Gradmann, The Teutonic farming community and the nucleated village. Vol. 10: H. Mortensen, New observations on deserted strip-fields. J. Schmithüsen, "Regions géographiques" and regional subdivision on a physical basis. E. Lendl, The most recent changes in the Austrian cultural landscape. Lendl here follows E. Otremba who dealt with the same topic as regards Germany in Vol. 8. It is aimed at keeping this up-to-date. Of the other parts, the surveys of the offices of the official German cartography, which since 1945 have been decentralised, are extremely useful. In Vol. 10 the offices of Lower Saxony and Schleswig-Holstein are dealt with. To sum up, one may say that this periodical, although going beyond the scope of a general reader, is indispensable for anyone who wishes to work seriously on the geography of Germany. K.A.S.

Bodenkundliches Kartenwerk (Raumordnungsplan auf bodenkundlicher Grundlage). **Der Gemeinde Bippin** (Provinz Hannover). Eberhard Ostendorff. Atlas: 32.3 × 45.5 cm.; Erläuterungsheft: 20.8 ×

29.6 cm. Provinzial-Institut für Landesplanung und Niedersächsische Landes und Volksforschung Hannover-Göttingen. Veröffentlichungen, Reihe K, Band 3. Gea Verlag Albers K.G. Berlin W 35. 1942.

Many atlases have been published as a basis for planning, but this, a planning-atlas of a single *Gemeinde* (civil parish) is certainly a unique case. Although it consists of 12 maps, each map goes into so much detail that it requires a close study. It seems difficult to imagine that more detailed information could be given about land-use than this. The principal map is one showing the distribution of soils; 21 types are distinguished which are further differentiated by superimposed symbols. It is followed by a map giving the agricultural land values, using the system employed all over Germany in which 100 represents the best agricultural land in Germany (Magdeburg Börde) and minor soils are represented by accordingly lower figures, so that a direct comparison between different parts of Germany is possible without difficulty. Other maps give the present land-use and field names, the hydrology and geology (one map each) followed by an "inventory" of the extractive resources and evaluation of the ground for building purposes. Further maps contain recommendations concerning the application of humus, liming, manuring, draining, and the best possible agricultural land-use. K.A.S.

Forschungen zur Deutschen Landeskunde. Veröffentlichungen des Zentralausschusses für deutsche Landeskunde und des Amtes für Landeskunde. Herausgegeben in Verbindung mit Th. Kraus, F. Metz, W. Müller-Wille, C. Troll von E. Meynen. Verlag des Amtes für Landeskunde, Remagen. 15.7 × 23.5 cm.

Vol. 58. **Zur Landschaftsentwicklung im Karst des oberen und mittleren Pegnitz-Gebietes.** R. G. Spöcker. 53 pp. + 6 plates + 2 maps. 1952. DM 6.20.

Vol. 59. **Die Großstadt Essen.** D. Weis. 85 pp. + 4 plates + 2 maps. 1951. DM 6.-.

Vol. 60. **Ländergrenzen im Südwesten.** F. Metz. 60 pp. — 113 maps. 1951. DM 8.60.

Vol. 63. **Die Siedlungsräume Mitteleuropas in frühgeschichtlicher Zeit. Part I, Einführung in die Methodik der Altlandschaftsforschung.** O. Schlüter. 48 pp. + 1 coloured map. 1 : 1.5 million. 1952. DM 8.-

These four publications are parts of one of the oldest geographical series in Germany, founded by the "Deutscher Geographentag" (Assembly of German Geographers) as far back as 1885 with the aim of advancing the study of the home regions which was then much neglected. Since then the picture has changed completely, largely due to this series which by now numbers over 200 research papers in more than 70 volumes. Some of them are classics still retaining their value as, for instance, R. Gradmann's papers on the rural and urban settlements of Württemberg. Formerly published privately, they have been produced since 1950 by the Amt für Landeskunde, a "Board of Regional Geography of Germany" as it might be called, which was founded in 1941 and now operates under the Federal Ministry of the Interior. Since Vol. 33 (1940), each paper counts as one volume so sizes now vary considerably. Vol. 58, by R. G. Spöcker, deals with the morphology of a section of the karstic landscape of the Frankonian Jura, the development of which is traced from the late cretaceous time to the post-glacial period. The paper is very well documented and illustrated. In Vol. 59, D. Weis paints a picture of the development of the landscape within the city boundaries of present-day Essen. He first reconstructs the picture of the rural settlements, their type and economy, and then in the second part deals with the development of the Ruhr-town itself. It seems strange, however, that war destruction and post-war dismantling and the problems arising thereof are not even touched. Vol. 60 contains a large number of maps and is, therefore, much larger in size than the previous ones. It is a geographer's contribution to the problem of the new federal organisation of Germany. F. Metz makes out a case against the restoration of the numerous states with their artificial boundaries hampering development, the "accident States" of the Napoleonic era, and advocates the creation of larger units, each "Land" embracing what on geographical and historical grounds belongs together. That South-West Germany is such a unit is put forward in a

most convincing way. In Vol. 63, the Nestor of historical geography in Germany, O. Schlüter, who was 80 last year, presents a survey of the settled areas of Middle Europe in the early periods of history. The most important part of this publication is a map of (Western) Middle Europe where the distribution of the old settled areas, forests (three stages of clearing are distinguished), heaths and swamps (unreclaimed and reclaimed shown by different tints) are shown. An immense amount of labour must have been put into this work, the beginnings of which date back to 1903. Schlüter does not attempt to reconstruct the landscape prior to human occupation, the *Urlandschaft*, a task which he considers at least at present still to be beyond our capabilities, but deals with landscapes of various early historic periods for which he uses the term *Altlandschaften*. The text deals with the methods by which they can be reconstructed and what sources are available. Nevertheless it seems worthwhile to note that, as he states, the argument about R. Gradmann's so-called *Steppenheide-Theorie* is by no means a closed chapter. No historical geographer should be without this publication on his shelf.

K.A.S.

Die Glan bei Salzburg. Karl Sinnhuber. 17 × 24 cm. 45 pp. 20 plates. Salzburg. Amt der Landesregierung. 1949.

This study describes the recent river improvements of the Glan and their effect on the area in and around Salzburg. The Glan's middle course through the "Moos," a fen to the south of the city was straightened, new weirs were built and other important improvements effected. The results have been the prevention of flooding in the "Moos" and, below the city, the lowering of the groundwater table and concomitant changes in land utilisation and the cultural landscape. Though long ago the "Moos" lost its wilder natural character, the recent improvements, executed mainly between 1924 and 1943, have finally emphasised man's dominance over nature expressed in the straight river course, the subtle changes in natural vegetation, the intensification of agricultural land use, the colonisation pattern of the "Moosstrasse" not unlike that of the fen colonies of North-western Europe, and finally the modern expansion of Salzburg City in the form of suburban and semi-rural housing. The author, with the help of a number of informative diagrams, maps and photographs, explains the technical changes in some detail but treats the general effect on the character of the landscape less felicitously from the viewpoint of the regional geographer. As a study of a small, formerly rather "negative" area in the immediate vicinity of a well-known and growing urban centre, however, this book will command wider interest.

M.R.G.C.

A History of Cyprus. Vol. IV, The Ottoman Province, The British Colony, 1571-1948. Sir George Hill. 16 × 23.5 cm. xv + 640 pp. London: Cambridge University Press Ltd. 1952. 70/-.

This volume, the fourth and last of Sir George Hill's monumental work, is likely to remain the standard source on the subject for a considerable time.

As the author himself says, a full treatment of the history of the island from 1878 would require a fifth volume, particularly if the rapid economic development, population growth and social change under British rule are to be adequately and fairly considered. In this respect the fourth volume is disappointing, as indeed it is for the economic history of the Ottoman period.

The political and Church history of the island are carefully and critically described, and full use is made of the scattered Turkish and Greek local sources (the volume is well documented). The conclusion can hardly be escaped that the identification of the autocephalous Orthodox Church of Cyprus with the ENOSIS movement (union with Greece), and its active participation in politics are features to be attributed to the long Ottoman rule. The tale of sordid intrigue and political irresponsibility in the Church itself is also not without bearing on the present constitutional problems.

One of the most interesting features of the book is that the ENOSIS movement is, perhaps for the first time in England, subjected to a full and critical study. The western powers' strategic interests in Cyprus at various dates are also considered. These last two points are not unrelated, for it is a paradox that at a time when this country's strategic interest in the island is perhaps greater than at any time since 1878, the island is more prosperous than ever before and the demands of the ENOSIS group are more uncompromising.

C.G.S.

The Nile. H. E. Hurst. 14 × 22 cm. xv + 326 pp. London : Constable and Co. Ltd. 1952. 30/-.

No river has been more carefully studied than the Nile ; yet there has been a singular lack of comprehensive works written on it. Drawing on his 40 years of scientific study of its hydrology and a first-hand acquaintance with almost all of its vast drainage basin, Dr. Hurst has set out to remedy that deficiency. The result is a volume which must rank among the most valuable ever written on Africa. In some 300 pages, and in simple and lucid fashion, the author covers an astonishing field. While the river and its hydrology is his central theme, woven around this are discussions of the lands, climates, soils, vegetation, peoples, economies and histories of the whole area it drains, so that the work is in fact a rounded geographical treatise. The wide range of information is handled with ease and skill, and the result is both informative and eminently readable. But it is for its lucid and authoritative treatment of the complex hydrology of the entire Nile system, together with a comprehensive explanation of all the improvement and utilisation schemes, old, new and projected, that the book will prove most useful. The style is occasionally rather abrupt and some of the illustrations are of indifferent quality but *The Nile* is a work that every geographer should read, and which most will surely want to possess.

R.F.P.

Arabian Jubilee. St. John Philby. 15.75 × 26.5 cm. xiv + 280 pp. London : Robert Hale, Ltd. 1952. 30/-.

This book is essentially a pageant of the achievements of the great Arabian hero King Ibn Sa'ud. It is written from the viewpoint of a privileged friend and counsellor who for very many years has shared fully in all the court life of this exceptional monarch. He describes the stages by which Ibn Sa'ud in his own lifetime has welded the dour, fanatical Wahhabi tribesmen into a very efficient force and thus conquered and consolidated the desert kingdom of Arabia, concluding with the conquest of Hijaz in 1945. Unlike others, Ibn Sa'ud never lost by weak statesmanship what he gained by good generalship. This ruler is shown as relentless in war, firm and humane in peace, his kingdom a triumph of absolute rule by a monarch wisely practising simple virtues.

The relationships with adjacent states and with Britain are shrewdly described from the Arabian point of view. There are interesting detailed accounts of the social life surrounding the Arabian Court, besprinkled with the views of the king on many matters. The adaptation of Arabian administration of a vast territory to ways made possible by radio and motor car instead of camels are described, as is the discovery and exploitation of oil which, elsewhere, has brought a profound social and economic revolution.

The book is illustrated by excellent photographs and one exasperatingly inferior map. It will be read with approval by all who are interested in details of the life and thought of Arabia though not as an account of its geography.

E.C.W.

The Arabs and the West. C. Hollingworth. 14 × 20.75 cm. xi + 285 pp. London : Methuen and Co., Ltd. 1952. 21/-.

This work attempts to present a history of post-war development in the Arab world for the general reader. The political, social and economic conditions in each of the Arab Countries, and the impact of western and communist ideas are tersely, indeed cynically, described. In broad outline the picture is accurate ; but it would be easy to find fault in detail with the geography, the economics and even the history. The Arab case receives scant justice, save in the account of the establishment of the state of Israel, which is impartially and ably described. Having been proved wrong on the inevitability of a "bloody revolt" in Egypt, the author may have over estimated communist influence elsewhere ; and the prospects for economic progress may not be as hopeless as she suggests. The book is lively and readable, and is obviously based on much first hand knowledge.

C.G.S.

Russia and Her Colonies. W. Kolarz. 14 × 22 cm. xiv + 334 pp. London : George Philip and Son, Ltd. 1952. 25/-.

This important book deals, not with "colonies" as the English know them, but with some of the many national groups living within the territory of the Soviet Union. The author, a Czech writer, of wide experience and sound scholarship, maintains the thesis that the "Soviet nationalities policy, instead of

destroying Russian Imperialism, has in reality tried to preserve and to consolidate it." The case is presented with great care and wealth of detail using material drawn almost entirely from Soviet sources.

The political history of a large number of national groups living in European Russia and Soviet Central Asia is dealt with, and in addition, a particularly interesting chapter describes the formation of the Jewish Republic of Birobidzhan in the Amur basin and its very moderate success. By its nature the book is mainly concerned with political and racial issues; geographical data appears only incidentally, but there are five clear maps to show the distributions of the groups discussed. The final chapter attempts a comparison between British Colonial policy and the Soviet system. The book fills a gap in the literature in English on the subject: the future alone can reveal the accuracy of the judgments and forecasts made in it.

D.W.S.

Outlines of the Geography, Life and Customs of Newfoundland—Labrador. (The Eastern Part of the Labrador Peninsula) V. Tanner 16.25 × 25.25 cm. Vol. I. 436 pp. Vol. II. 473 pp. Cambridge: Cambridge University Press. 1947. 50/- (for the two vols.).

Professor Tanner's voluminous survey of eastern Labrador represents, as its author frankly admits, only a preliminary report of his own expeditions—carried out in 1937 and 1939—and of his research into earlier literature. The reader is made aware of this characteristic of the work by the distinctly uneven style, partly anecdotal and partly formally scientific. Against this, however, must be set the fact that, preliminary or not as his findings may be, Professor Tanner's knowledge of the physical detail of the area is vast, and his research has carried him to sources far and near. His interest lies in possible similarities, physical and economic, between Labrador and his Fennoscandian homeland.

One inevitable shortcoming of a work on an area so largely unsurveyed is the lack of maps. To some extent, this is balanced by the number of good photographs. On the human and economic aspects of his subject the author, as a geologist-geographer, appears less at home and some of his comment seems a little naïve. However, he correctly predicts the growth of interest in the Labrador iron ores, which give to this remote region much of its present economic significance and may largely govern its future development.

J.H.P.

New Spain's Century of Depression. Woodrow Borah. 15.75 × 23.5 cm. 58 pp. Berkeley. University of California Press. 1951. 75c.

Earlier researches in this series by Cook, Simpson and Sauer showed how, owing to oppression and forced labour, starvation and epidemics, the population of Central Mexico fell from about 11 millions in 1519 to 2 millions by 1600, with a trough of 1.5 millions in 1650. Following these, Borah describes the transformation of the systems of labour during the 17th century, the century of (extreme) depression. Borah's "hypothesis" seems well founded. Demographically, he shows how this holocaust of native folk explains the dominance and survival of whites and people of mixed races, native, white and black—by contrast with the increase of native population in India under the rule of the British. As to economy, Borah concludes that by the end of the 17th century "this was already organised on the basis of latifundia and debt peonage (the economic bondage to a creditor-employer), the twin aspects of Mexican life which helped provoke the Revolution of 1910–17." The writer seeks to be fair from a standpoint of liberal economics. But one is left to doubt whether the indebted Mexican peon was "protected" not only from "the oppressive Indian nobility" but also from "the elaborate and expensive community activities" of his peasant-forebears. May not the break-up of village community with its social and economic protection have been a significant factor causing the cessation of cultivation and the famines which led to the century of depression, and the centuries of hopelessness and savage embitterment which flamed into revolution?

A.G.

The Australian Roadside. Edna Walling. 18.5 × 25 cm. xii × 112 pp. London: Oxford University Press, Ltd. 1952. 30/-.

This book will be valued mainly for its excellent pictures and accompanying botanical notes of the arboreal vegetation commonly to be seen from the highways and byways of South-eastern Australia. In a school or university reference library it should be found a place for this reason. The title is misleading but is explained by the fact that the text, though lacking in style, is largely a praise-

worthy plea for recognition of the value and the charm of the native flora, rather than its destruction and replacement by exotics in the location of new roads. The book is a timely reminder to those Australians who are not yet aware of their heritage and the need for taking measures to conserve it. F.H.W.G.

From Track to Highway: A Short History of New Zealand. Alan Mulgan. 14 × 21.5 cm. 127 pp. Christchurch: Whitcombe and Tombs Ltd. 1944.

After a brief reference to the pre-European phase, for which Sir Peter Buck's *Coming of the Maori* and other, older books are available, Mulgan writes of pioneer days and subsequent phases down to 1944, i.e. just beyond the first century of modern contacts. Rightly, the emphasis is laid on communications, the track with a slowly increasing number of draught beasts, the dust and mud road supplemented by coastal shipping and long delays. This made for small local policies that hampered the later development of railways in so many parts of New Zealand, that are, as the author well states, set up on end.

Gold washing was followed by wool as the prime factor of economic life, with South Island in the lead. The advent of the refrigerator-ship at first increased the sheep industry, but later frozen fruit and butter developed on a large scale, and made smaller estates practicable besides making North Island very predominant in population.

The political accompaniments of this economic evolution, and, in particular, the revolution wrought by the motor-car and aeroplane are outlined. Throughout one notes an appreciation of the Maori and an honest effort to acknowledge mistakes. The need, from the defence point of view, of an increased population and of better school education might perhaps have been given more attention. But the little book is sincere, attractively written and made more vivid by short sketches of such remarkable men as George Gray and Richard Seddon, Massey and many others. H.J.F.

Deutscher Geographentag München. 26.9.-2.10.1948. Tagungsbericht und wissenschaftliche Abhandlungen. 16.8 × 23.7 cm. 264 pp. + 12 maps and plates. Vol. 27 of *Verhandlungen des Deutschen Geographentages*. Verlag des Amtes für Landeskunde. Landshut 1950/51. DM 15.50.

Since 1881 it has been the tradition in Germany that geographers from universities and schools meet every other year or so for a "Geographentag" for the reading and discussion of papers, for excursions and other business. After the last pre-war congress in 1936, the first post-war one was held in Munich in 1948. This publication contains the programme and the papers read, together with the discussions. The volume impresses by the wide range of topics, which are all of more than limited interest, the high standard of the papers and the pleasing production. In the first paper E. Obst discusses critically "The problem of systematic geography" and emphasises that our subject must inevitably develop to be neither more nor less than regional geography (study of regions and countries) whereas all branches of systematic geography will become independent subjects, indispensable for a geographer's training but not a part of geography themselves. He advocates the development of a general geography of a different type, based on regional geography. In the second paper J. Wagner summarises the present state of teaching of geography in schools and points out some shortcomings of the new curriculum. A new system of geomorphology that classifies landforms on the basis of greater climatic differentiation, the present trend in Germany, is outlined by J. Büdel, who distinguishes over the earth nine major climatic-morphological zones. The character of pleistocene aggradation and degradation in the example of the Alpine Foreland is discussed by I. Schäfer. Contrary to the theory of A. Penck he puts forward the suggestion, supported by many examples, that even in the Foreland the glacial periods are on the whole periods of degradation. E. Otremba suggests various present-day problems of the geography of Germany which require a closer study. Contributions to the study of rural settlements are made by F. Huttenlocher (Gewandorf und Weiler) and W. Brünger (Das Doppelhofproblem). Very important is the paper by H. Pohlendt on the various grades of intensity in the medieval settlement desertion in Germany. For the first time a synoptic map of this process all over Germany is presented. A well illustrated paper by H. Bobek deals with the different types of societies in the Orient and the influence of those social organisations on the

landscape. K. Kayser comes to some new conclusions about the geomorphology of the Great Escarpment in South Africa. E. Weigt surveys modern problems of European agriculture in East Africa. The possibilities of agricultural land use in north-western North America are outlined by F. Bartz. In the last paper, G. Pfeifer discusses the world food supply and population problem. This volume is also available in 12 separate parts. K.A.S.

Our World from the Air. E. A. Gutkind. 27.5 × 30 cm. vii pp. 400 photographs. Subject index. London: Chatto and Windus. 1952. 63/-.

This sumptuous volume raises high hopes by its title and its sponsors, one of whom describes the author as "an inspired human geographer." The 400 plates cover a great variety of topics and regions, but several major areas of the world are not represented and in the British Isles there is nothing of Wales, Scotland or Ireland. The only omission mentioned by the author is Japan, of which in fact there are several photographs. The selection was no doubt largely dictated by the available sources. It is the arrangement of the pictures and the captions that must be criticized. One cannot but feel that a great opportunity has been missed. Instead of a systematic study of town-plans, village types and field-systems, we find material illustrating these major themes under sections labelled "Fear and security" and "Aggressiveness and disintegration." Sociological jargon takes the place of scientific analysis of landscape. There are several errors of fact in the captions (Death Valley is stated to 5,798 feet below sea level) and interpretation is hindered by the absence of scale and compass-points. For students able to make their own analysis this superb collection of aerial photographs is of the greatest value. E.E.E.

The Tropical World ; its social and economic conditions and its future status. Pierre Gourou. Trans. by E. D. Laborde. 14.25 × 22 cm. xii × 156 pp. London: Longmans, Green and Co., Ltd. 1953. 18/-.

This is a book which should be read by every teacher of geography and by every sixth-form geographer. It is exactly what is required to correct the grave misapprehensions about the Tropics which, in the reviewer's experience, are all too common amongst University entrants. After an introduction, there are two chapters on tropical diseases and soils which bring out very clearly that these, and not the direct action of climate and vegetation on man, are the fundamental natural factors which hinder tropical development. A series of chapters then summarises clearly the nature and consequences of shifting cultivation (the characteristic and by no means foolish agriculture of the Tropics) and the problems of tropical stock-rearing, food supply and industry. The author then turns to tropical Asia and analyses the reasons for the very high densities of population which, in spite of the physical difficulties of the Tropics, are to be found in this highly civilised region; in particular, he stresses the almost ideal nature of wet rice cultivation as a means of overcoming the snags inherent in tropical soils. There are then two final chapters, one on tropical problems due to European intervention, the other a valuable conclusion.

A book like this, aiming to deal with a complex of problems, is bound to generalize; but the account of the origin of laterite is too generalized (p. 21). And, since it is doubtful whether Maya civilization did in fact decline because of soil exhaustion, a better example might have been chosen to show what happens when shifting cultivators become too thick on the ground (pp. 43-52). But these are details.

The translator is to be congratulated on his work, though "autarchy" should be "autarky" (p. 149). The book is well produced and is better illustrated than the original French edition. B.H.F.

The Tropical Rain Forest: an ecological study. P. W. Richards. 17 × 25.5 cm. xviii + 450 pp. London: Cambridge University Press Ltd. 1952. 63/-.

In view of modern advances in the study of plant ecology during the last fifty years, it has become increasingly evident that many of the formerly accepted generalisations on the climax plant formations of the world are in need of re-examination. It is, therefore, appropriate that Professor Richards should provide the means for the re-examination of one of the largest and relatively untouched blocks of climax vegetation in the world. His book is an extremely

detailed, scholarly and critical presentation of the state of knowledge of the ecology of the Tropical Rain Forest at the present time. It is divided into six major parts. The first, while describing minutely all plant forms, carefully assesses their significance in the light of former and recent theories. An analysis of what is known of the Rain Forest climates, micro-climates and soils forms the basis of the second part. The two following deal exclusively with the floristic composition of the main climax associations within the forest, together with a classification and analysis of the primary successions or seres leading to the establishment of a stable climax Rain Forest. A consideration of this great plant formation under its limiting conditions and the effect of man upon it form a fitting conclusion to a book which must be stressed as of considerable importance to those interested in the Rain Forest as a plant community or as an environment. J.T.

Les Fondements de la Géographie Humaine. Tome III. L'Habitat, conclusion générale. Max Sorre. 16.5 × 25.5 cm. 500 pp. Paris. Librairie Armand Colin. 1952. n.p.

This is the third and concluding part of a characteristic French study of human geography in a general sense. It is enriched with quotations from the founder of the French school, Vidal de la Blache, and one is glad to find also much appreciative comment on the thought of the Italian scholar, R. Biasutti, whose works have been read far too little in English-speaking lands. Sorre continually emphasises that the facts of life are to be appreciated in terms of process, always adapting themselves to men's needs, difficulties and opportunities. Indeed, change is the one constant element in the universe. The book attempts to discuss generalities, giving collections of examples from many parts of the world, somewhat as, in another field of study, Frazer gave in his *Golden Bough*. Whether this or a more determinedly regional treatment is better must be left an open question. Sorre at any rate tries to avoid the idea that all humanity is trying to clamber up one and the same ladder of social evolution.

This third part of this work deals with habitat, rural and urban. Biasutti, adapted by Sorre, denotes A as a region peopled with isolated houses, rarely more than two together, B as a region containing groups of 2 to 25 houses (perhaps up to 150 people), C as a region with larger villages, and D as a region with villages that are near urban status. CA would then be a region with villages, apart from which there would be a number of more or less isolated farms. CBA would imply villages as the major scheme with hamlets as a secondary feature and a few isolated farms.

Sorre gives further elaborations which researchers will find it interesting to consider. Bloch is accepted as the best authority on the rural habitat from the historical side but the study is not intended to be historical, it wants to bring out general principles. It succeeds rather well in picturing the contrast between the traditional European village and the rural centre of population, mainly traders and craftsmen, in the U.S.A. Perhaps if Sorre had been more accustomed to a region of AB of the classification above he would have given more importance to the hamlet growing up at a bridge or some other node, as a unit in which farming may not have been the sole, even perhaps not the chief concern.

The study of the city lays much stress on spiritual factors of its origin and growth. The city, as a centre of spiritual power attracting men to live under its aegis, has certainly been a great feature in the life of humanity, and the radiation of that power is one of the main threads of human history.

Sorre sees industry in towns as a secondary growth from commerce and so rather improves, this reviewer feels, on Sombart's views which made industry arise from a surplus of local production. The frequency, at many periods, of the chequer-board and star patterns is discussed, and the inconveniences of imposing the chequer-board of streets on a site with steep slopes is appropriately illustrated from the famous case of San Francisco. A slip on page 280 gives Oxford as a case of rectangle cross roads imposed by the Romans; Oxford is thought to be late Saxon. A typographical slip dates the fire of London as 1066 in place of 1666, but no one will be misled.

The many references to Demangeon show what the study of the rural habitat lost through his death. Members of the Geographical Association will be glad to know that M. Dunlop, *The Demography of South-east Lancastria*, is praised as a good analysis of complex movements. The ample annotation of the bibliographies at the end of each chapter is a valuable feature. M. Sorre will, we think, most appreciate being told that he has upheld and expounded the tradition and heritage of Vidal de la Blache.

H.J.F.

A NEW APPROACH TO GEOGRAPHY!

AIR AGE WORLD MAPS

In this modern age Mercator's style of projection gives little conception of to-day's world. These new maps, in simple outline, give a new impression of the shape of the earth and the relative position and size of the continents. They are an outstanding contribution to background material for project work in GEOGRAPHY, CURRENT AFFAIRS, ECONOMICS, SOCIAL STUDIES.

SET OF FOUR CHARTS, 20 x 30, PRINTED 2 COLOURS

PRICE 20/-

- ★ World map on new projection centred on North Pole showing relative positions of Great Britain, America and Russia.
- ★ World map on Mercator's projection compared with world map on new projection.
- ★ World map on new projection centred on London, showing NATO countries and Russia.
- ★ World map on new projection centred on Far East.

Write now for our NEW CATALOGUES, and inform us if our Educational Representative has not called at your school recently.

Educational Productions

LIMITED

17 DENBIGH ST., LONDON, S.W.1

60 COPIES PER
MINUTE



NO
PREPARATION

Ready for
immediate use.

NEW ADDITIONS

M.146. West Riding of Yorkshire
M.147. Tees-side
M.148. The Potteries
M.150. Sarawak
M.151. Cumberland and
Westmorland
M.152. Suffolk
M.153. Derbyshire
M.154. Nottinghamshire
M.155. Nigeria
M.157. East Riding and Yorkshire
M.158. Isle of Man

M.159. Southampton Water and
Isle of Wight
M.160. Plymouth Sound
M.161. Sunderland
M.162. S. Rhodesia
M.164. Dorset
M.165. Fife, Kinross, Clackmannan
M.166. North Riding of Yorkshire
M.168. Jamaica
M.169. Rhodesia and Nyasa
M.170. Cardigan and Radnor
A.21. South Africa

THE MAPOGRAPH CO. LTD.

440, HIGH ROAD, CHISWICK, LONDON, W.4.

Telephone : CHIswick 5635

Established 1923

Hutchinson's

Out this month:

MAPS AND THEIR MAKERS

An Introduction to the History of Cartography

G. R. Crone

This introduction to the history of map making seeks to trace the general course of development from the early simple outlines to the accurate and detailed maps of today. It is not a technical study of survey, geodesy or the other sciences which have aided cartographic progress though references to them are necessary. It is based on the belief that the historical approach to maps and to the problems which their makers have had to solve can lead those who use them to a better appreciation of their characteristics and limitations. 7 maps

Published last May:

THE RESTLESS ATMOSPHERE

Professor F. K. Hare

"It is an admirable book, to be strongly recommended to anyone seeking the explanation not only of the normal climate, but of such astonishing variations from the mean as afflicted Britain in Coronation week. . . For the geographer, and for anyone concerned with life and development in overseas territories, it is essential reading."

THE ECONOMIST

Illustrated

Each Volume 8s. 6d. net.

University Library

GEOGRAPHICAL FIELD GROUP

Hon. President :

Prof. K. C. EDWARDS,
M.A., Ph.D., F.R.G.S.

Hon. Vice-Presidents :

Miss A. GARNETT, B.A., Ph.D.,
A. E. MOODIE, Esq., B.A., Ph.D.,
N. V. SCARFE, Esq., M.A.

The Geographical Field Group is a non-profit making organisation which arranges for parties of geographers to carry out field-work under qualified leaders. In 1954 it is hoped to arrange parties in Spain, the Balearic Islands, the Shetlands and Galway.

Full particulars of the group and its activities and copies of recent publications, including *The N.W. Primorje of Jugo-Slavia* (price 3/9 post free) may be obtained from :

Miss N. F. LOCKTON,
The Hon. Secretary, Geographical
Field Group, The Hollies, Notting-
ham Road, Ashby-de-la-Zouch,
Leicestershire.

OVERSEAS ECONOMIC SURVEYS

These reports cover all aspects of economic life—finance, trade, industry, production, legislation, resources, etc.

Recent issues include:

BRITISH EAST AFRICA

5s. (5s. 3d.)

FINLAND

4s. (4s. 3d.)


INDIA

11s. (11s. 6d.)

Prices in brackets include postage

H. M. STATIONERY OFFICE

P.O. Box 569, London, S.E.1, and Sale
Offices in London, Edinburgh, Man-
chester, Birmingham, Cardiff, Bristol
and Belfast or through any bookseller.



ASSOCIATION OF AGRICULTURE

Recommended Publications, Film Strips and Films

MAP OF THE PRINCIPAL SYSTEMS OF FARMING IN GREAT BRITAIN. A new and simplified map showing the generalized distribution of farming systems in Great Britain has been compiled by Professors L. Dudley Stamp and Keith Buchanan for The Association of Agriculture and the National Federation of Young Farmers' Clubs.

In eight colours. Size 42" x 27".

Price 7s. 6d. (post free) from The Association of Agriculture.

A 12-PAGE ILLUSTRATED BOOKLET by Professor Keith Buchanan, on The Distribution of Systems of Farming in Britain gives an introduction to, and a detailed description of, the systems shown on the Wall Map.

Price 1s. (post free) from The Association of Agriculture.

FARM ADOPTION BY POST. Descriptions of eight typical British farms offer new aids to teachers.

Selected on a regional basis, the folders provide interesting contrasts. Each includes a photograph of the farm, a county map, a map of fields and buildings and details of soil, cropping, livestock, labour, markets, geography and history. Progress Reports follow three times a year.

Price 5s. per farm. Particulars from The Association of Agriculture.

FILM STRIPS. As a complement to the Farm Adoption Scheme, filmstrips of seven of the farms are being produced by Common Ground (1951) Ltd.

Price 16s. 6d. Particulars from

The Educational Supply Association Ltd., 181 High Holborn, London, W.C.1.

FILM ON FARM ADOPTION. Shell-Mex and B.P. Ltd., corporate members of the Association, have made a film on the Farm Adoption Scheme which not only brings vividly to life the contrast between town and country but shows the value of agricultural themes in general education. The film is entitled The Farm Adoption Scheme, available in 35mm and 16mm sound, black and white, running time 15 minutes. Available on free loan from Shell-Mex and B.P. Ltd., Trade Relations Department, Shell-Mex House, Strand, London, W.C.2, or any divisional office of the company.

THE ASSOCIATION OF AGRICULTURE
238-240 Abbey House, 2 Victoria Street, London, S.W.1



in response to insistent demand

Many books of photographs having geographical significance have found their way on to the market from time to time, but never before have regions of the homeland been so expertly surveyed pictorially or so cleverly interpreted.

PICTORIAL SURVEY OF ENGLAND AND WALES

George Philip have pleasure in announcing that they have secured the services of a team of well known and experienced geographers to complete this fine series, and sections covering the remaining regions are being prepared.

already published

Section I. THE OXFORD REGION, by C. F. W. R. Gullick, B.Litt., M.A.

Section II. EAST ANGLIA, by F. Debenham, M.A.

Each book contains 16 sheets on art paper.

8½ by 13¼ inches. Manilla covers, 4s. each.

ready shortly

Section III. SOUTH EAST ENGLAND, by E. P. Mills, B.Sc.

Section IV. NORTH EAST ENGLAND, by A. A. L. Caesar, M.A.

in preparation

THE MIDLANDS, by M. J. Wise, M.C., B.A.

LANCASHIRE AND CHESHIRE PLAIN, by H. Thorpe, M.A., M.Litt.

CAMBRIA, by W. W. Anson, B.Sc.

Each section contains first class photographs taken for the geographer at locations of his own selection, together with specially drawn maps and diagrams designed to emphasise the points of geographical significance in the landscapes to which the attention of the student is directed.

**George Philip and Son
Limited**

30-32 FLEET STREET LONDON E.C.4

The Restless Atmosphere. F. K. Hare. 12.25 × 19 cm. 192 pp. London: Hutchinson's University Library. 1953. 8/6.

All students of geography will welcome the appearance of this book. Meteorology and Climatology are not particularly easy topics to write upon but Professor Hare has produced a lucid and pleasantly written account which will serve both as an introduction to the subject and also as a valuable revision course for those already acquainted with the main textbooks.

The preliminary chapters review briefly the physical laws governing weather processes and there-after the author confines his attention to the field of "dynamic climatology." Fronts and air masses receive careful treatment, then the general circulation of the atmosphere and the climates of the continents are described in terms of these fronts and air masses. Readers of *Geography* will be familiar with this approach through the contributions of Professor A. A. Miller (see *Air Mass Climatology, Geography*, April, 1953). Professor Hare's book however represents one of the first attempts to develop this theme at length. The publication is well referenced and includes a useful review of the general literature of meteorology and climatology. W.G.V.B.

The Earth's Face. E. Pfeiffer. 14 × 22.5 cm. 138 pp. London: Faber and Faber, Ltd. 1953. 12/6.

The growing awareness of the dangers consequent upon a reckless exploitation of the soil has produced many books in recent years dealing with the world food crises and man's devastation of the landscape. Dr. Pfeiffer deals more closely with the second of these two interrelated themes; but his method of approach in considering separately the problems arising in different types of environment (e.g. the plains, the mountains), at the same time detailing various methods of control, is more unusual. The presentation is occasionally rather confusing and the style, which tends to be a little grandiloquent, sometimes leads to a certain obscurity. Nevertheless, the stress laid on the reciprocal effects of the landscape (including the urban) on man and the suggestions for obtaining a better fusion of town and country are most valuable. E.M.Y.

Soil and Sense. M. Graham. 12.25 × 19 cm. 274 pp. London: Faber and Faber, Ltd. 1953. 8/6.

First published in 1941 when the plough-up campaign was in full progress, this book, whilst not denying the necessity of the wartime exploitation of the riches accumulated under long-established grass, drew attention to the value of grass in preserving soil fertility and the dangers attendant upon unwise usage of artificial fertilisers. In 1953 the message, which is essentially "Take care of the land," is of increasing importance. In order to achieve this, ley farming is strongly advocated and too reckless a removal of covenants restricting the ploughing of pastures is deprecated. The argument is put forward moderately and in a stimulating manner and much of the detail, e.g. the character of various pasture grasses and methods of ley farming, is most useful. The book is intended for the general reader and no specialist knowledge is demanded. E.M.Y.

Land for Tomorrow. L. D. Stamp. 14 × 20.5 cm. 230 pp. New York: American Geographical Society and the Indian University Press. 1952. \$4.00.

Our Undeveloped World. L. D. Stamp. 14.5 × 22 cm. 189 pp. London: Faber and Faber, Ltd. 1953. 18/-.

These two books are the American and British editions, respectively, of the text and maps of a course of lectures delivered in the University of Indiana in 1950. The British edition is the later and incorporates the more recent statistics.

The problem is the equation of world population and world food production. It is one which Professor Stamp, the Director of the Land Utilisation Survey of Britain and the President of the International Geographical Union, with field knowledge of land use in the Old World and the New, in temperate and in tropical latitudes, is exceptionally well qualified to discuss. He does not, except in summary form, attempt to forecast world population nor does he deal with the need for, or the problems involved in, its limitation. This is an intricate problem in itself and it is essential that it should be examined separately. Attention is concentrated

on the land required to feed world population and, as population increases, on increasing productivity per acre and on bringing new land into cultivation. The problem which faces the world to-day is not wholly dissimilar, it may be observed, to that which faced Britain 150 years ago and in temperate latitudes it is capable of being resolved by the substitution of mixed farming for monoculture of exhaustive cereals just as in Britain the New Husbandry replaced the three-field system of husbandry. Professor Stamp emphasizes the higher yield per acre in N.W. Europe and the need for the New World to emulate the Old and to bring output per acre up to the same level by comparable methods of farming. Although the problems still to be solved are legion, there is a wealth of experience, both practical and experimental, to draw upon. But Professor Stamp points out that very little indeed is known of the most suitable treatments for tropical soils and that irremediable harm can be done by precipitate action, as some recent examples have shown. On paper the tropics may appear to be the vast undeveloped lands of the world, but their more intensive use should, so it may be argued, be delayed until experimentation devises methods suited to tropical soils and climates (with their rapid oxidation of humus, for example), entirely different as they are to those of temperate latitudes. Professor Stamp cannot present an exhaustive analysis of the problem in such a small compass and there are many problems in the comparability of yields per acre and in the calculation of live stock densities, for example, which he does not discuss. But the analysis is sound and it is very important that it should be widely known to politicians and administrators the world over. W.S.

Unterirdischer Städtebau besonders mit Beispielen aus Gross-Berlin. Ernst Randzio. 21.6 × 30.1 cm. 97 pp. + appendix of 27 tables + 3 maps. Veröffentlichungen der Akademie für Raumforschung und Landesplanung; Raumforschung und Landesplanung Bd. 20. Walter Dorn Verlag, Bremen-Horn. 1951. DM 15.-

One wonders why this problem has not been dealt with before. Strictly speaking it is a work of town-planning and engineering, but nevertheless it is of importance to the urban geographer, as being the first systematic treatment of that part of a town which lies invisibly underground, the "U-Raum" ("U-Space, Underground Space") as the author calls it. Although not part of the townscape when interpreted in a limited sense, its implications for the physiognomy are very great. So much more is its consideration necessary if we aim, as we should, at an appreciation of the complete character of a town. After the great war-destruction in many cities much was said about re-planning. Taking into consideration the great amount of capital (mostly public) invested in the U-Space, and the fact that the U-Space suffered much less damage than surface structures, we find that its existing pattern exercises a definite control over reconstruction, and its function becomes clearly visible. This is especially evident in Berlin where the value of the U-Space in 1938 was 8.8 milliards of marks and which only suffered a loss of 10 per cent. despite the great destruction of the city. Careful planning of the U-Space is vital since mistakes in this field have much wider implications and are much more difficult to correct than errors in locating certain surface structures. Randzio distinguishes three types of U-Space depending on the size of the town. The physical elements also act as distinguishing factors, notably such as the nature of the building ground, height and fluctuations of the ground water table, and climate (frost). This results in great differences in cost of construction and, for instance, practically rules out deep underground railways in Berlin like the ones existing in London. K.A.S.

Groszstadtforschung. Fragestellungen, Verfahrensweisen und Ergebnisse einer Wissenschaft, die dem Neubau von Stadt und Land von Nutzen sein könnte. Elisabeth Pfeil. 17.2 × 24.3 cm. 272 pp. Veröffentlichungen der Akademie für Raumforschung und Landesplanung; Raumforschung und Landesplanung Bd. 19. Walter Dorn Verlag, Bremen-Horn. 1950. DM 8.-

Our century is characterised by an ever increasing population concentration in big cities. They are a class of urban settlement by themselves and require special study. This "Study of the Big City" (Groszstadtforschung) has grown with the cities themselves since every urban growth was followed by additional

problems requiring solution. In the first part the study of the big city is outlined during the 19th century and in its development since 1900. The second part deals with present day problems. The conclusion reached by the author is that the antithesis between town and country must be overcome: the country must retain as much as possible of its distinctiveness while at the same time adjusting its world to that of the big city which then loses its magnetic force. The statements are well documented (over 600 footnotes and a detailed 7-page bibliography up to 1949). It is not an urban geography, but an urban geographer will gain appreciably in deeper understanding of the problem of the big city life, especially in Germany. K.A.S.

Innovation : The Basis of Cultural Change. H. G. Barnett. 15.5 × 23.25 cm. xi + 462 pp. London : McGraw-Hill Book Co. 1953. 36/-.

Psychological factors of innovation are an interesting study for researchers into social change, change which begins in individual minds. One could wish the author had considered medical and surgical innovations, probably the most important cause of population increase, but he has largely confined himself to objects and ideas, and in these fields, invention is often the mother of necessity. We become dependent on gadgets we cannot make for ourselves and customs we can but follow. The reference to Neolithic innovations should be enriched. Minor inconveniences in the home led Neolithic women to make ovens for cooking, to become spinsters of fibres, to grow food plants, to make baskets and pots. Innovations such as these are rarely deliberate. Male conquerors and immigrants marry daughters of the conquered and introduce new ideas; and imitation of the conquerors often causes frustration among the conquered, as in many Pacific Islands. Zones of culture contact promote objective detachment and so may bring forth innovations especially in thought; our Welsh border is a notable instance. An English group was asked to reproduce an American Indian myth read to them. Successive reproductions at intervals departed more and more from the original, and showed efforts to rationalise the myth on English lines. This is a frequent type of innovation. Innovations are nearly always combinations of pre-existing ideas dependent on the innovator's mentality, and they are apt to spread through the innovator's kin or close admirers, but such a group of followers often develops kinship through marriages among themselves. Certain innovations may spread through the power prerogative of dictators, who, however, are very apt to cause frustration and decline of initiative through authoritarian methods, in religion and in politics as well as in material inventions. The author uses his special intimate studies, for example, in the Palau islands, and among the Shakers of Western U.S.A. (typically, half or more American Indian).

H.J.F.

Culture Worlds. R. J. Russell and F. B. Kniffen. 19.25 × 20 cm. xviii + 620 pp. New York : The MacMillan Company. 1952. n.p.

Louisiana University has re-organised its primary geography course on a basis of human culture. Polar, European, Dry, African, Oriental, Pacific and American Worlds are treated in this order but in each the physical basis is made introductory to the human superstructure, the discussion of which focusses on the present but gives some consideration to the past. An alternative sequence, with some advantages, would start with the Dry World. In its median riverine lands men first learned food production by cultivation; in its southern and northern steppe lands and desert-fringes people learned to rely more and more on animals and became foot-loose herders. From the Dry Belt (Sahara-Manchuria) food production spread to the other regions. Whether Europe is better treated as one world or, following Mackinder, as two or three—Heartland (including parts of Asiatic U.S.S.R.), Western Europe (including Central Europe) and Mediterranean—is a question. The treatment of the African World as the region south of the Sahara is altogether commendable. The authors have had the great advantage of study under Carl Sauer and they carry his ideas with their own. The book seems a reference text to accompany lectures and this explains why it has encyclopædic or gazeteer material that would detract from the unified sequence of argument in a lecture. More emphasis could be placed, with advantage, on the consideration of modes of life in each area, and there might be more reference to their evolution, but the book is very much alive and is a welcome indication of a valuable and courageous intellectual enterprise. H.J.F.

Of Societies and Men. Caryl P. Haskins. 14 × 22 cm. xiv + 282 pp. London: G. Allen and Unwin, Ltd. 1952. 20/-.

The author, a student of insect and other animal societies, considers tendencies among social beings as *familial* (tending of young as in birds, mammals and many insects), *associative* (gathering of groups as in rookeries, etc.) and *integrative* (closely knit groups with fixed differentiation of function and often of structure). In the early chapters he gives fascinating descriptions of bees, ants, termites with social organisation and adds suggestive notes on analogies with human societies. The later chapters deal almost exclusively with man, who is biologically familial and associative but, through language and abstract ideas, has built up societies of culture that tend to be integrative. The integrative tendencies can achieve great results especially in an environment protected from change (whence the Iron Curtain as a shelter for fragile dictatorships), but readiness and initiative in meeting changed circumstances are sacrificed. A delicate balance between all three tendencies, however difficult to attain, is a fuller and, in the long run, more practical ideal for man. Integrative tendencies, invaluable in some measure, have often led to disaster when allowed too complete dominance and authoritarians have nearly always been atrocitarians. H.J.F.

Neuer Geschichte- und Kultur Atlas. Dr. Hans Zeissig. 25.5 × 19 cm. 138 pp. Hamburg. Atlantik-Verlag. 1950. n.p.

When we say that the first map of immediately post-Roman times in Europe is on page 31 the reader will appreciate the wide time perspective of this atlas. The maps of Europe in the old and the new Stone Age show considerable detailed knowledge of the facts, knowledge which is used with sufficient restraint to give richness and at the same time clarity. No doubt the maps, especially that of Bronze Age Europe, will need revision in time, but there is a permanent quality about maps showing great contributions to civilization; the Roman Empire is treated as an experiment in organisation. The map showing the efforts of the north men is a very live document. We have to reach page 63 before the Oceanic voyages of discovery appear. The last 75 pages are devoted to maps for the last 450 years and they include some of lands outside Europe, but our continent is the main theme, and the maps of cultural features are a most important element in this book. We wish it could be issued for English geographers with English captions. We have nothing comparable. H.J.F.

A Hundred Years of Anthropology. T. K. Penniman. (2nd ed. rev.) 14.25 × 22 cm. 512 pp. London. Gerald Duckworth & Co., Ltd. 1952. 30/-.

This is a survey characterised by a wide tolerance and an intimate knowledge of several fields of study. The pre-Darwinian view that all mankind were struggling up a ladder which had western Christian civilisation at the top has handicapped anthropology and the truer humanism which, following Darwin, saw evolution resulting in a many branched genealogical tree. Indians are not undeveloped Europeans but diverse. Different accumulations of variations occur in groups of men mutually isolated, geographically or socially, and natural selection helps to eliminate some variations and thus to establish others. So we come to studies of non-European societies in their own right as functioning groups, but these studies still too often forget the fundamental Darwinian idea that living beings and their environments need to be studied together, the holistic view that Smuts elaborated in philosophy. An improvement is coming through physical anthropology's new investigations of health and strength and working capacity. In this matter, attention is called in this book to the recent medical discovery that very strong ultra-violet radiation is apt to burn the sweat glands if it can penetrate the skin, but it is in large proportion stopped by brown pigment, which must thus be of great value to many Africans, especially in the west, who have large sweat glands to help cooling by evaporation.

The book was first published in 1935, but has a long new section by the author, Miss B. Blackwood, and Mr. J. S. Weiner on scientific advances between 1935 and 1952. Their tribute to the work of W. H. R. Rivers will be welcomed by all who try to study mankind. H.J.F.

What is Race? 22.5 × 16 cm. 24 pp. Paris. U.N.E.S.C.O. 1952.

This is an unfortunate attempt to give a more or less authoritative opinion. U.N.E.S.C.O. might appropriately learn from the Royal Society of London

which states in every volume of Transactions that in the fields of study no opinion can be set forth as that of the Society, only individual opinions are permitted. If only that attitude could spread to all fields of thought we should be nearer the ideal of peace. Apparently some scientific people have tried to diminish some of the crudities of the pamphlet but too many remain and it does little or nothing towards furthering its ostensible aims; in fact it neglects opportunities in that direction. That it drags in the old tale of the "Garden of Eden" and the apple is one of many regrettable items. H.J.F.

The Teaching of Geography in Secondary Schools. Incorporated Association of Assistant Masters in Secondary Schools. 3rd ed. 14 × 18·75 cm. xxiv + 512 pp. London. G. Philip & Son, Ltd. 1953. 17/6.

In 1930 a sub-committee of the Incorporated Association of Assistant Masters in Secondary Schools, under the chairmanship of the late L. B. Cundall, was appointed to investigate the teaching of geography and five years later the Memorandum which they compiled was published. This proved of such value to teachers that a second edition appeared in 1939 which was reprinted in 1946. Now a third, and much enlarged, edition has been published. Every aspect of the subject has been examined afresh and recent developments in the teaching of geography have been embodied. For example, there is a whole chapter (pp. 377-400) on geography teaching in Secondary Modern schools. There the nature of the problem is treated sympathetically and guidance given on methods of teaching and sources of information. Emergency trained teachers and non-specialists, who may have floundered in a sea of social studies, will obtain help in establishing a world of geography from the panel of experts and correspondents who contributed to this book. There are chapters on schemes of work, equipment, Sixth Form work; sections on visual aids, local geography, soil studies (pp. 185-188) and home-made apparatus. In the chapter "Geography outside the Time-table" there is information on foreign travel and the British Ship Adoption Society. Is it significant that in the first edition there were 60 pages, a whole chapter, on examinations, but only 12 in the third? Do teachers think less about examinations and more of geography as a philosophy of life?

It is unfortunate that three spelling mistakes mar the book. On p. 137, Cantire is given for Kintyre; on p. 255, rain guage for rain gauge, and on p. 399, unbiassed for unbiased. Nevertheless, this edition is a mine of information; a book which all students and teachers of geography will wish to possess.

E.M.C.

Aspects of Geography Teaching in School. James Walker. 25 × 19 cm. vii + 160 pp. Edinburgh: Oliver and Boyd, Ltd. 1953. 7/6.

Dr. James Walker modestly claims that his recent publication is intended mainly for students and young teachers but it will have a wider appeal and does something to remedy the shortage of good books on the teaching of geography. A clear exposition of principles and methods of approach is followed by several sensible chapters on work in the primary school. Teachers south of the Border may be surprised at the amount and standard of the suggested work and may not share the author's enthusiasm for the "picture map" or the regional method. Secondary school teaching is considered under various special headings, one, on town sites, being particularly good; the statement that "Mathematical geography now forms an important part of geography work in all post-primary schools" many would think over-optimistic.

A larger volume would doubtless discuss more fully such aspects as the use of radio and ciné film, the merits of various non-regional syllabuses and give the younger teacher help in the selection of material. In spite of its limited scope the book is sound and practical and should be read by all geography teachers.

D.W.S.

Teaching for International Understanding. U.N.E.S.C.O. 13·5 × 21 cm. vi + 96 pp. London: H.M.S.O. 1952. 3/6.

This is a summary of the work of a committee set up in this country to promote the objects of U.N.E.S.C.O. The committee, under the chairmanship of Miss L. E. Charlesworth, met over a period of some 2½ years, and finally handed over the task of writing its report to Dr. C. F. Strong, whose work this pamphlet very largely is. This "examination of methods and materials" ranges interestingly over the

whole field of the education of young people. The keynote of its advice is to be found in the word "for": teaching, not *of*, but *for*, international understanding. It will be generally agreed that this is our way of thinking in Britain, and that most subjects offer opportunities for the indirect development of right attitudes and the acquisition of useful knowledge concerning international affairs and other peoples. History and geography stand out in these respects, and receive due attention. The importance of religious education is stated but not elaborated.

E.W.H.B.

Marketing (Young Farmers' Club Booklet No. 26). I. G. Reid. 13.5 × 21.25 cm. 48 pp. (National Federation of Young Farmers' Clubs). London. Evans Bros., Ltd. 1952. 2/-.

Although this booklet was written primarily for members of the Young Farmers' Club Movement, it should prove very useful to teachers and senior pupils of geography. Its purpose is to promote understanding of the actions involved in the transference of agricultural produce from farm to consumer in these days of large cities and much movement of food and raw materials over long distances. This is done clearly and in an interesting manner by taking a number of commodities and dealing not only with selling and buying, grading and packing, and transport, but also in outline with processing. The products considered are milk, eggs, beef, wool, wheat, potatoes, brussel sprouts and sugar beet. The booklet is easy to read and amply illustrated.

C.P.S.

The British Isles. A. Demangeon. 3rd-edition, translated and revised by E. D. Laborde. 14.25 × 22.25 cm. xviii + 434 pp. London. W. Heinemann and Co. Ltd. 1952. 21/-.

The call for a third edition of this book suggests that it has made a secure place for itself. We can but repeat the welcome we gave to previous editions. The claim for a thorough revision of the book in the light of the 1951 census is well sustained, but several of the maps should be dated, even if they could not be redrawn. The paragraphs on town life in East Anglia illustrate both the merits and shortcomings of the book. For each town there is a clear word picture. For Colchester, however, the picture is not altogether true. Ships in the Middle Ages were not able to sail up to its very walls for the tidal Colne is a good mile away down a hill. The river traffic has probably much the same volume as in those days. It is now a garrison town. Its centrality is not sufficiently emphasised. But again, let it be said that the merits are far greater than the shortcomings.

T.C.W.

Map-Reading for Schools. Margaret Wood. 18.5 × 25 cm. 66 pp. London: G. G. Harrap and Co., Ltd. 1950. 6/-.

This book was first reviewed in *Geography* in 1940. In the new edition map extracts from the one inch New Popular sheets of the Ordnance Survey replace those of earlier editions. An extract from a 1/25,000 sheet has been added. In accordance with these changes the first section of the book, concerned with essential "map grammar" has been brought up-to-date. The rest of the book is concerned with map interpretation at the former School Certificate and Subsidiary Higher School Certificate level. In addition to the nine map extracts there are black and white maps, block diagrams and a number of excellent photographs.

E.P.B.

Länder und Völker. 1. Mid Europe. H. Lippold. 148 pp. **2. Europe.** E. Boehm. 176 pp. **3. Africa, Asia, the Pacific Region.** K. Heck. 180 pp. **4. The Americas.** R. Fox. 152 pp. 15.5 × 23 cm. Stuttgart. Ernst Klett Verlag. 1951. n.p.

These German school texts are enriched with fine full page photographs and many sketches and cartograms. Landscape with consideration of structure and the climate is followed by a study of man in each environment. British teachers would note with interest the rather adult approach of the writer, and the types of information he places at the disposal of the pupils. We must own that the illustrations are usually better than those in comparable English books.

H.J.F.

Seydlitz 1951. Herausgeber : Christian Degn-Erwin Eggert-Johannes Petersen-Ernst Sobotha. Erster Teil : Das Deutsche Vaterland ; Wir und die Welt. 18.8 × 23.8 cm. 136 pp. Im Gemeinschaftsverlag von Ferdinand Hirt in Kiel-Hermann Schroedel Verlag in Hannover.

The Seydlitz 1951 (part I), retaining the well-known name of its many fore-runners, a textbook for German pupils aged about 12, is of a type which can be highly recommended. If this does not create within the minds of the pupils a vivid picture of their country (Germany within the frontiers of 1937, but up-to-date in treatment) it seems difficult to imagine what can. Emphasis is given to illustrations, especially photographs, which are excellent and numerous (372). The text is neither too short so as to become an accumulation of subject matter for memorising, nor too long so that nothing is left for the teacher to say. A teacher in this country teaching the geography of Germany at any stage, even with no knowledge of German, will not go through the pages of this book without appreciable gain.

K.A.S.

Kreuz des Südens. O. Hauger. 144 pp. 1950. **Lapin Hullu.** L. Kattwinkel. 119 pp. 1948. **Im Treibeis-Gürtel.** A. Hoygaard. 127 pp. 1949. **Das Arktische Jahr.** G. Weiss. 162 pp. 19.5 × 24.5 cm. 1949. Hamburg. Georg Westermann Verlag. n.p.

These little books are examples of a series based in each case upon travel and consequent intercourse for a period with people of a tradition difference from that of the author concerned. It is Brazil in the first case, Lapland in the second, Angmassalik (Greenland) on the coast in the third and North-east Greenland in the fourth. The journey to Brazil took the author via Oporto to Pernambuco, Bahia, Rio, Santos and Sao Paulo and back to Manaos before returning to Europe via the Cape Verde Is. and Madeira. The Lapland journey gives pictures of reindeer and herding. The Angmassalik book has illustrations of the writer's contacts with Eskimo of the coast with kayak for the men-hunters and umiak for the women as well as sledges. The Arctic Year of a meteorologist in North-east Greenland gives remarkable pictures of clear weather and storm in the regions of the Wordie glacier, so-named after the President of our Royal Geographical Society. The photographs in each book would be of great value to a teacher, and those who can also read German will gain a great deal of rather intimate knowledge of the life and problems of the peoples concerned. The Brazilian book gives also quite a lot about the early European adventurers who first attempted to settle in the country, but it is all given as a personal unsystematised record and is probably, for that reason, truer to life.

H.J.F.

Kleine Länderkunden. Erde und Weltall. G. Frebold. 121 pp. 1949. **Grundfragen der Erdgeschichte.** G. Frebold. 172 pp. 1949. **Suomi Finnland.** W. Evers. 167 pp. 1950. **Die Südöstasiatische Inselwelt.** K. Helbig. 150 pp. 1949. **Die Sowjet Union.** W. Leimbach. 526 pp. 1950. **Australien.** K. H. Pfeffer. 160 pp. 1950. **Die Sahara.** H. Schiffrs. 254 pp. 1950. **Der Erdteil Asien.** A. Schults. 231 pp. 1950. **Japan Meerbestimmtes Land.** L. Mecking. 179 pp. 1951. 13.5 × 20 cm. Stuttgart. Franckh'sche Verlagshandlungen. n.p.

This is an interesting series of little illustrated books (that on the U.S.S.R. is much larger than the others) for the non-specialist adult reader. The general plan of the regional studies is to treat the physical basis first and to build up a picture of human activities on that foundation, but, naturally, the emphasis varies with the region treated. The study of the Sahara, for example, very properly includes no less than 60 pages on climate, while the study of Australia devotes a chapter to the features of Australian culture. This argues that British influence is far more powerful in Australia than American and it brings out the point that Australian English is closely akin to Cockney. The book on the Soviet Union is based upon official documents and attempts to avoid prejudice. The author who deals with Finland has sympathy and admiration for Finnish efforts for cultural autonomy. A little book on the whole of Asia is inevitably very generalised, but its topics have been chosen with considerable care. The book on Indonesia speaks about modes of life of its peoples and traces the spread of Dutch administration. For

Japan the immense increase of Japanese industry and trade during and following World War I is specially noted. The general work on the *Weltall* or Universe treats of the earth as a planet, of the solar system and of the stars in a broad general way while the study of earth history reviews broadly not only the geological sequence but also tectonics and some problems of the earth's interior. The books numerous photographs. One could wish that we in Britain had a public that would buy such books as these.

H.J.F.

The New World Wide Geographies. (Second Series.) Book II, Africa, Asia, and Australia. Book III, Europe and the British Isles. Jasper H. Stembridge (ed.) 15.5 × 20.5 cm. 320 pp. and vi + 327 pp. respectively. London: Oxford University Press. 1952. 6/- each.

These books belong to the post-war edition of the series formerly known as the *World Wide Geographies*. The preface states that they are intended for use in Secondary Modern Schools; it is a pity that many maps and the text are rather overloaded with place-names. Each continent is introduced by a chapter of largely historical character followed by one dealing formally with its physical geography. Thereafter, the chapters follow a regional division and are mainly descriptive; despite a slight guide-book flavour, they contain much useful and interesting material. There are numerous photographs, many of which will repay class study. Each chapter ends with questions. The last chapter of Book II is a general one on weather and climate (not, as the preface states, on the shape and movements of the earth).

There are many maps and they may broadly be described as of the sketch map type. Apart from the fact that one misses from many of these any indication of latitude, even of specially significant lines such as the equator, more attention might have been given to their revision. Examples needing improvement include fig. 13 (Book I) which shows "hot, wet, tropical forest" stretching far into the arid zone of Kenya; fig. 39 which shows Moscow well within the steppe belt; fig. 5 (Book III), with unsatisfactory isotherms and fig. 14 with the South Limburg coalfield incorrectly located. Such blemishes are unfortunate in books that have many good features.

L.S.S.

Four in Hand, Educational Series. Vol. I. Australia, H. M. Madeley. Vol. II, Greece. G. Wise. 12.5 × 19 cm. 208 pp. and 221 pp. respectively. London. Werner Laurie. 1952. 6/- each.

The significance of the title of this series lies in the introduction, which states that "educational authorities" now advocate that individual subjects in the school curriculum should not be taught in watertight compartments and that this series "presents this theory in concrete form" by taking a country and dealing with it under the four aspects of Geography, History, Civics and Literature. In brief, each book attempts a synthesis except that "literature" appears as the second part of each book, consisting of some 50 pages of selected passages of prose and verse. Each volume is illustrated with maps and line drawings. There is no indication of the age or course for which the books are intended: they are simply and easily written and one may hazard the guess that they are intended for the Secondary Modern School. Each chapter is followed by what is called a "Quiz."

The book on Australia covers in a very interesting way a large number of topics, including the achievements of explorers, the black-fellows, gold, the desert, "White Australia," federation, the flying doctor and aspects of social life. A good many of the essentials of Australian Geography are pleasantly worked into the 35 chapters; the geography is not systematic, the maps are mostly of the simple "picture" type, and there is no physical map of the continent nor does the pupil have his attention specifically directed to its study. Nevertheless, the book achieves a very pleasing fusion—in a simple and direct way—of many elements in the Australian environment and teachers of geography will find much to interest them in both Parts I and II. This is a very useful "background book."

The volume on Greece is mainly history—and ancient history—and Chapter 29 (there are 35 chapters) brings us down to the times of Constantine the Great. It is pleasant to record that the history is set against a reasonably adequate physical background, the description of which is introduced incidentally as it seems relevant. Modern Greece receives brief but interesting treatment—the story is brought down to the present day—and although the geographical content is not intended to be systematic, these chapters are useful. The extracts in Part II are primarily literary.

L.S.S.

GEOGRAPHY

INDEX TO VOL. XXXVIII

1953

AUTHORS

Barnes, F. A., and King, Cuchlaine A. M.: The Lincolnshire Coastline and the 1953 Storm Flood	141
Boerman, W. E.: The Storm Floods in the Netherlands	178
Briault, E. W. H.: The Study of Local Geography as an Integral Part of the School Course	29
Buchanan, K. M.: The Delimitation of Land Use Regions in a tropical Environment. An example from the Western Region of Nigeria ..	303
Chew, Hilary C.: The post-war Land Use of the former grasslands of Eastern Leicestershire	287
Clayton, K. M.: A Note on the 25 Foot "Contours" Shown on the Ordnance Survey 1:25,000 Map	77
Cole, R.: The Hydro-Electric Power Scheme in the Glockner-Kaprun Area of Austria	93
Davies, I.: Urban farming. A Study of the Agriculture of the City of Birmingham	298
Debenham, F.: Diamond Jubilee Address.	212
Debenham, F.: Travel. (Presidential Address)	117
Edwards, K. C.: The Netherlands Floods: some further Aspects and Consequences	182
Edwards, K. C.: A Note on the River Trent	161
Elkins, T. H.: The Brown Coal Industry of Germany	18
Fleure, H. J.: Sixty Years of Geography and Education. A retrospect of the Geographical Association	231
Gifford, Joyce: The Exmoor Storm of 15th August, 1952. II—Landslides on Exmoor	9
Grove, A. T.: The Sea Flood on the Coasts of Norfolk and Suffolk ..	164
Howarth, O. J. R.: A Survey of the present position of Geography in Schools	267
Howe, G. M., and Yates, R. A.: A Bathymetrical Study of Llyn Cau, Cader Idris	124
Hunt, A. J.: Land use Survey as a Training Project	277
Kidson, C.: The Exmoor Storm of 15th August, 1952. I—The Exmoor Storm and the Lynmouth Floods	1
King, Cuchlaine and Barnes, F. A.: The Lincolnshire Coastline and the 1953 Storm Flood	141
Long, Mollie: Children's Reactions to Geographical Pictures	100
Macgregor, D. R.: A Note on Canvey Island	176
Miller, A. A.: Air Mass Climatology	55
Mutton, Alice F. A.: Carinthia	83
Oughton, Marguerita: Letter from Zeeland	188
Prudden, H. C.: Blackboard Outline Maps	107
Robinson, A. H. W.: The Sea Floods Around the Thames Estuary ..	170
Robinson, A. H. W.: The Storm Surge of 31st January—1st February, 1953	134
Sealy, K. R.: Some useful statistical Sources: a review	308
Secondary Schools Section Committee: Essentials of a Good Secondary School Atlas	33
Warrington, T. C.: The Beginnings of the Geographical Association. From the Jubilee Address, 1943	221
Waters, R. S.: Aits and Breaks of Slopes on Dartmoor Streams ..	67
Yates, R. A., and Howe, G. M.: A Bathymetrical Study of Llyn Cau, Cader Idris	124

ARTICLES AND NOTES	PAGE
Air Mass Climatology	55
Aits and Breaks of Slope on Dartmoor Streams	67
Bathymetrical Study of Llyn Cau, Cader Idris	124
Beginnings of the Geographical Association	221
Blackboard Outline Maps	107
Branches of the Geographical Association, 1953	274
Brown Coal Industry of Germany	18
Carinthia	83
Children's Reactions to Geographical Pictures	100
Correspondence :—	
Bro. Reginald : Instruments for Geography	111
E. R. Franklin : Weather Records	109
E. V. Lane : The Secondary School Atlas	110
Margaret Powell : The Macquarie Marshes	37
Delimitation of Land Use Regions in a tropical Environment. An example from the Western Region of Nigeria	303
Diamond Jubilee Address	212
Diamond Jubilee Celebration, Sheffield, 26th September, 1953	209
Essentials of a Good Secondary School Atlas	33
Exmoor Storm and the Lynmouth Floods	1
Exmoor Storm of 15th August, 1952	1
Geographical Articles in Magazines Received	52, 205
Geographical Association :—	
Annual Conference, 1952/53	112
Annual Conference, 1953/54	190, 322
Annual Conference Teas, London	322
Annual Report, 1952	39
Branch News	44, 113, 324
Congratulations	44
Council, nomination of new members	322
Diamond Jubilee Meeting	112, 190
Early geography textbooks	324
<i>Geography in the Primary School</i>	113
Gifts to the Association	44
Instructions to Authors	113
Lincoln Branch Publication	324
Members' subscription rates	322
Revenue Account, 1951-52	41
Second International Conference of Teachers of Geography	190, 323
Section for Further Education in Geography	112, 190, 324
Spring Conference, Lincoln, 1953	44, 190
Spring Conference, 1954	323
Summer Meetings, 1954	113, 190, 323
Summer School at Pulborough, 1953	38, 113, 322
Water and Contour Pulls	114
Herbertson Memorial Lectures	266
Hydro-Electric Power Scheme in the Glockner-Kaprun Area of Austria	93
Landslides on Exmoor	9
Land Use Survey as a Training Project	277
Letter from Zealand	188
Lincolnshire Coastline and the 1953 Storm Flood	141
Netherlands Floods : some further Aspects and Consequences	182
Note on Canvey Island	176
Note on the 25 Foot "Contours" Shown on the Ordnance Survey 1 : 25,000 Map	77
Note on the River Trent	161
Notes :—	
Anthology of Geographical Literature	191
Brit. Assoc. Tropical African Research Committee	324
B.B.C. School Broadcasts	44
British Ship Adoption Society	44
Chairs of Geography at Glasgow, Leeds, Khartoum	191, 324
Geography in the Higher Civil Service Examination	113
Imperial Institute	44
I.G.U. Commission on the Teaching of Geography	325

Notes :

	PAGE
Local Study in G.C.E. Geography	114
Netherlands Information Service	191
Recent Appointments	113
Royal Tour to Australia, Visual Aids	325
Specialisation in 6th Form Geography	114
U.N.E.S.C.O. Book Coupons	325
Obituary :—	
Sir Charles Arden Close	109
L. B. Cundall	35
James Fairgrieve	316
Miss B. Hosgood	320
H. A. P. Jensen	321
F. G. Morris	36
H. J. Wood	36
Officers of the Geographical Association, 1893–1953	265
Post-war Land Use Pattern of the former grasslands of eastern Leicester-shire	286
Sea Floods around the Thames Estuary	170
Sea Flood on the Coasts of Norfolk and Suffolk	164
Sixty Years of Geography and Education	231
Some useful statistical Sources : a review	308
Sources of statistical information (bibliographic list)	313
Storm Floods of 1st February, 1953	132
Storm Floods in the Netherlands	178
Storm Surge of 31st January–1st February, 1953	134
Study of Local Geography as an Integral Part of the School Course	29
Survey of the present position of Geography in Schools	267
Travel	117
Urban Farming. A Study of the Agriculture of the City of Birmingham	296

ILLUSTRATIONS, MAPS AND DIAGRAMS

Air Mass Climatology :—

Fig. 1.—World distribution of rainfall, January and July	63
Fig. 2.—Air masses affecting the British Isles	66
Table I—Climatic types, associated air masses and weather, summer and winter	64, 65
Table II—Monthly air mass frequency at Kew and Scilly	67
Aits and Breaks of Slope on Dartmoor Streams :—	
Fig. 1.—Long profile of the moorland Plym, Devon	70
Fig. 2.—A composite knick	72
Fig. 3.—Ait development	73
Fig. 4.—Stages of ait development	75
Plate I—The Upper Plym Valley	facing 72
Plate II—The Upper Plym Valley	72
Plate III—The Upper Plym Valley	72
Plate IV—Ait No. 7.—A newly formed ait	73
Plate V—Ait No. 6.—Intermediate stage of development	73
Plate VI—Ait No. 5.—A rock ait	73
Table I—Angle of slope of the valley floor in the neighbourhood of each ait	69

Bathymetrical Study of Llyn Cau, Cader Idris :—

Fig. 1.—Llyn Cau in its topographical and geological setting	126
Fig. 2.—Geological section through Llyn Cau	127
Fig. 3.—Llyn Cau : Lines of soundings	127
Fig. 4.—Llyn Cau : Isobaths and lines of sections	128
Fig. 5.—Llyn Cau : Sections	131
Table I—Mensuration of Llyn Cau, Dulyn and Glaslyn ; area, volume, etc.	129
Table II—Percentage of superficial area corresponding to different depths of water	129

Brown Coal Industry of Germany :—

Fig. 1.—The utilisation of brown coal and briquettes in Western Germany, 1949	21
Fig. 2.—The Rhenish brown coal district	25
Fig. 3.—The Central German brown coal districts	27

	PAGE
Table I—Reserves of brown coal and production of brown coal and briquettes in 1936, 1950 and 1951	19
Carinthia : a province of Austria's Southern Frontier :—	
Fig. 1.—The provinces of Austria	facing 84
Fig. 2.—Klagenfurt : a plan	84
Fig. 3.—Carinthia, index map	85
Plate I—The Gross Glockner	88
Plate II—The lake-side resort of Pörschach am Wörthersee	88
Plate III—The trench of the upper Drau below Lienz	89
Plate IV—The Karawanken Range from Velden at the head of the Wörthersee	facing 89
Children's reactions to geographical pictures :—	
Fig. 1.—Children's comments on pictures	101
Fig. 2.—Children's comments on pictures	105
Fig. 3.—Relation of comments to Intelligence Quotients and age groups	106
Plate I—Bideford Area, Devon	facing 100
Plate II—Giant's Causeway	100
Plate III—Eglinton Valley, New Zealand	101
Delimitation of Land Use Regions in a tropical Environment :—	
Fig. 1.—The land use regions of the Western Provinces of Nigeria and their environmental background	307
Distribution of the Branches of the Association, 1953 :—	
Map	274
Exmoor Storm of the 15th August, 1952 :—	
Fig. 1.—Rainfall of North Devon and West Somerset, 15th August, 1952	2
Fig. 2.—The Lynmouth streams	3
Fig. 3.—Longitudinal profiles of the East Lyn, West Lyn and Heddon	7
Fig. 4.—Sketch map of Lynmouth village	8
Fig. 5.—Landslides on Exmoor	11
Fig. 6.—Key to plate VIII	13
Fig. 7.—Sketch of part of the north-facing slope of the Exe valley, including the Raven's Nest ravine	15
Plate I—The East Lyn looking up stream	facing 4
Plate II—The East Lyn looking up stream through Lyndale bridge at 11 a.m., August 18th	4
Plate III—The West Lyn looking downstream on August 18th	5
Plate IV—The bridge of the West Lyn, looking up stream on August 18th	facing 5
Plate V—The West Lyn flowing on its new course on August 18th	facing 12
Plate VI—Work in progress on August 18th for the redirection of the West Lyn	facing 12
Plate VII—Small debris slide at the head of the Heddon Valley	13
Plate VIII—Warren Farm debris avalanche	13
Hydro-electric Power Scheme in the Glockner-Kaprun area of Austria :—	
Fig. 1.—Western Austria	95
Fig. 2.—Glockner-Kaprun Power Scheme, 1952	96
Fig. 3.—Section of Complete Scheme	97
Fig. 4(a).—Power Output	99
Fig. 4(b).—Specific flow of rivers	99
Table I—Electric power production, 1937, 1947	100
Lincolnshire coastline and the 1953 Storm Flood :—	
Fig. 1.—Flooding and Breaches in relation to certain physical features	147
Fig. 2.—Lincolnshire coast : beach profiles and offshore relief	151
Netherlands Floods : some further Aspects and Consequences :—	
Fig. 1.—Flooded areas in the southwest Netherlands, February 1st, 1953	184
Fig. 2.—Flooded areas in the southwest Netherlands, 1st July, 1953	185
Tables I-IV—Statistics relating to the flooded areas of the southwest Netherlands : Population ; Flooded Areas ; Livestock Losses ; Damage to Property	187
Note on Canvey Island :—	
Fig. 1.—Growth of settlement in the area of Canvey Island and Southend, 1905-1945	177

Note on the 25 foot " contours " shown on the Ordnance Survey 1 : 25,000 map :—	
Fig. 1 and 2.—Analysis of the heights at which contours were surveyed or sketched in the counties of England and Wales	80, 81
Note on the River Trent :—	
Fig. 1.—Graphs showing maximum water level in the Humber and Lower Trent for the tides of January 31st–February 1st and February 16th, 1953	163
Post-war Land Use Pattern of the former grasslands of eastern Leicestershire :—	
Fig. 1.—Eastern Leicestershire	287
Fig. 2.—Changes in the distribution of arable land in Eaton Parish ..	289
Fig. 3.—Part of the Welland district, 1951	291
Fig. 4.—Part of the uplands of southeast Leicestershire, 1951 ..	292
Fig. 5.—Specimen farm near Loddington, 1951	293
Fig. 6.—Clawson and Harby Parish, 1950	294
Sea Flood on the Coasts of Norfolk and Suffolk :—	
Fig. 1.—The coast of Norfolk and Suffolk	167
Fig. 2.—Erosion of dune line at Palling, Norfolk	168
Sea Floods around the Thames Estuary :—	
Fig. 1.—The major areas of flooding on the Essex and Kent coasts ..	172
Fig. 2.—Sketch surveys of the changes in the sand and shell bank off Sales Point, Bradwell, Essex	173
Fig. 3.—Comparison of beach profile for section line 1,000 ft. north of the Guilford Hotel, Sandwich Bay, Kent	175
Sixty Years of Geography and Education :—	
Fig. 1.—A facsimile of the notice of the Oxford meeting, 4th April, 1893	239
Fig. 2.—The membership of the Geographical Association, 1893–1953 ..	253
Storm Floods in the Netherlands :—	
Fig. 1.—Record of tide gauge at Vlaardingen, 27th January–3rd February, 1953	181
Storm Floods of 1st February, 1953 :—	
Plate I—Acre gap between Sutton and Sandilands (Lincolnshire) at low tide facing	152
Plate II—Six Marshes (Lincolnshire) on the south side of a wide gap facing	152
Plate III—The breach in the stepped sea-wall at Mablethorpe (Lincolnshire) and extensive flooding to the west and south ..	153
Plate IV—A view looking northwards across the Mablethorpe breach over the demolished sea-wall facing	153
Plate V—The damaged jetty and remains of the lighthouse, Margate Harbour, Kent facing	160
Plate VI—Heavy seas pounding the concrete promenade on the north side of Chapel Point, Lincolnshire facing	160
Plate VII—The breached sea-wall and the flooded marshes of the northern Wantsum Channel, Kent facing	160
Plate VIII—A gap in the sea-dike near Dinteloord, West Brabant, Netherlands facing	161
Plate IX—Repair work on a small gap in Schouwen–Duiveland, Zeeland facing	161
Storm Surge of 31st January–1st February, 1953 :—	
Fig. 1.—The track of the depression 30th January–1st February, 1953 ..	136
Fig. 2.—Predicted and actual tidal curves for Dover, 31st January–1st February, 1953	137
Fig. 3.—Graphs of residual values (tide) for selected ports 31st January–1st February, 1953	139
Table I—Predicted and actual height of High Water at selected east coast stations, 31st January–1st February, 1953	138
Table II—Surge at High Water along the Dutch coast, February 1st, 1953	140
Urban Farming. A Study of the Agriculture of the City of Birmingham :—	
Fig. 1.—Urban farming in the City of Birmingham	297
Fig. 2.—Farms by size groups	298
Fig. 3.—Occupiers by economic types	299
Table I—Conditions of the farms	300

	PAGE
Table II—Crop rotations in the City of Birmingham	301
Table III—Farms by economic types	302
Table IV—Summary of the 1951 cropping in Birmingham	302

REVIEWS OF BOOKS

Addison, W.: Suffolk	45
Additional Chapters to H. W. Codrington's <i>A Short History of Ceylon</i> . L. H. H. Perera	115
Air Geography: a global view. T. C. Lyon	201
A.M. Met. Office: Climatological Atlas of the British Isles	191
Akademie f. Raumforschung u. Landesplanung. Bd. 19. Elis. Pfeil: Groszstadtforschung	340
Akademie f. Raumforschung u. Landesplanung. Bd. 19 E. Randzio: Unterirdischer Städtebau	340
Alaskan Odyssey. B. R. Hubbard	199
Allan, J. R.: The North East Lowlands of Scotland	197
Amazing Amazon. W. Price	49
American Agriculture. Min. of Agric. and Fisheries	48
Amer. Geogr. Soc. J. K. Wright: Geography in the Making	200
Amer. Geogr. Soc. E. Fischer and F. E. Elliott: A German and English Glossary of Geographical Terms	202
Amt für Landeskunde, Deutschland: Berichte zur Deutschen Landes- kunde, vols. 5, 10	331
Amt für Landeskunde, Remagen: Forschungen zur Deutschen Landes- kunde, Vols. 58, 59, 60, 63.	332
Amtes für Landeskunde, Landshut: Deutscher Geographentag München, 1948. Verhandlungen d. Deutschen Geographentages, Vol. 27	336
Andrew's and Dury's Map of Wiltshire. Wilts. Arch. and Nat. Hist. Soc.	195
Animal Ecology. C. Elton	202
Arabian Jubilee. H. St. John Philby	334
Arabs and the West. C. Hollingworth	334
Armstrong, T.: The Northern Sea Route, Soviet Exploitation of the North East Passage	199
Aspects of Geography Teaching in School. J. Walker	343
Australian Roadside. E. Walling	335
Bailey, E.: Geological Survey of Great Britain	115
Baker, W. P.: The English Village	328
Balchin, W. G. V., and A. W. Richards: Practical and Experimental Geography	203
Barley, M. W.: Lincolnshire and the Fens	45
Barnett, H. G.: Innovation. The Basis of Cultural Change	341
Baty, F. W.: Forest of Dean	195
Beaufort, L. F. de: Zoogeography of the Land and Inland Waters	202
Beckinsale, R. P. (Ed.), Wilts. Arch. and Nat. Hist. Soc.: the Trowbridge Woollen Industry	195
Belfast and its Regional Setting—a scientific survey. Brit. Assoc. for the Adv. of Sc. E. Jones (Ed.)	196
Bellingham and Wark. Population Structure and Employment Conditions. J. W. House. N. Tyne Surv. Committee	196
Berichte zur Deutschen Landeskunde. Vols. 5, 10. Amt für Landes- kunde, Deutschland	331
Berkshire. I. Yarrow	329
Berkshire County Council. F. Hull: Guide to the Berkshire Record Office Bodenkundliches Kartenwerk. Der Gemeinde Bippin. E. Ostendorff. .	193
Bomford, G.: Geodesy	115
Borah, W.: New Spain's Century of Depression	335
Boussard, J.: London	328
Bracey, H. E.: Social Provision in Rural Wiltshire	45
Brady, N. C., T. L. Lyon and H. O. Buckman: The Nature and Properties of Soils	201
Brazil: an interim assessment. J. A. Camacho. R.I.I.A.	49
British Assoc. for the Adv. of Science. E. Jones (Ed.): Belfast and its Regional Setting—a scientific survey	196
British Assoc. for the Adv. of Science. C. J. Robertson (Ed.): Scientific Survey of South-eastern Scotland	196
British Columbia. F. Goodchild	48

	PAGE
British Isles. A. Demangeon	344
British Isles. J. F. Unstead	329
British Overseas Trade from 1700 to the 1930's. W. Schlote	327
Broads. R. H. Mottram	194
Brunhes, J.: Human Geography	51
Buckman, H. O., T. L. Lyon and N. C. Brady: The Nature and Properties of Soils	201
Bygott, J.: An Introduction to Map Work and Practical Geography	50
Bygott, J.: Lincolnshire	194
Camacho, J. A. R.I.I.A.: Brazil: an interim assessment	49
Canada, Dept. of Mines and Tech. Surv. B. Shindman: Taiwan (Formosa)	199
Cannan, J.: Oxfordshire	194
Census of Woodlands. 1947-49. Woodlands of Five Acres and Over. Census Report No. 1. Forestry Commission	192
Charlesworth, M. P., and others: The Heritage of Early Britain	192
Cinque Ports. R. F. and F. W. Jessup	328
Climate and the British Scene. G. Manley	191
Climatological Atlas of the British Isles. A.M. Met. Office	191
Commercial Geography. S. Hall	116
Comparative Survey. J. W. House. N. Tyne Surv. Committee	196
Croizat, L.: Manual of Phytogeography	201
Crump, W. B.: The Little Hill Farm	196
Cuillin of Skye. B. H. Humble	197
Culture Worlds. R. J. Russell and F. B. Kniffen	341
Danielsson, B.: The Happy Island	200
Darby, H. C.: The Domesday Geography of Eastern England	193
Debenham, F.: Study of an African Swamp	198
Debenham, F.: The Use of Geography	49
Demangeon, A.: The British Isles	344
Deutscher Geographentag München, 1948. Amtes für Landeskunde, Landshut	336
Dickinson, R. E.: Germany: a general and regional geography	330
Domesday Geography of Eastern England. H. C. Darby	193
Douch, R.: Handbook of Local History: Dorset	193
Earth's Face. E. Pfeiffer	339
Ekman, S.: Zoogeography of the Sea	202
Elliott, F. E., and E. Fischer. Amer. Geogr. Soc.: A German and English Glossary of Geographical Terms	202
Elton, C.: Animal Ecology	202
Elton and the East African Coast Slave-Trade. A. E. Loftus	198
Emerald Isle. G. Taylor	329
English Local History Handlist. Historical Assoc.	193
English Village. W. P. Baker	328
Europe. J. F. Unstead	329
Europe. S. Van Valkenburg	329
Face of Ulster. D. O'D. Hanna	47
Fischer, E., and F. E. Elliott. Amer. Geogr. Soc.: A German and English Glossary of Geographical Terms	202
Fondements de la Géographie Humaine. Tome III. L'Habitat, conclusion générale. M. Sorre	338
Forest of Dean. F. W. Baty	195
Forestry Commission: Census Report No. 1. Census of Woodlands, 1947-49. Woodlands of Five Acres and Over	192
Forschungen zur Deutschen Landeskunde. Vols. 58, 59, 60, 63. Amt für Landeskunde, Remagen	332
Frazer, M.: Wales, Vols. 1 and 2	46
Freshwater Fish and Fishing in Native North America. E. Rostlund	200
From Track to Highway: a short history of New Zealand. A. Mulgan. Geodesy. G. Bomford	115
Geography in the Making. J. K. Wright. Amer. Geogr. Society	200
Geography of Europe. J. Gottman	47
Geological Survey of Great Britain. E. Bailey	115
German and English Glossary of Geographical Terms. E. Fischer and F. E. Elliott. Amer. Geogr. Soc.	202
Germany: a general and regional geography. R. E. Dickinson	330

	PAGE
Gibson-Hill, C. A. and G. Hawkins : Malaya	198
Glan bei Salzburg. K. Sinnhuber	333
Goldring, F. and S. W. Wooldridge : The Weald	194
Goodchild, F. : British Columbia	48
Gordon, S. : The Highlands of Scotland	197
Gottman, J. : A Geography of Europe	47
Gourou, P. : The Tropical World	337
Graham, M. : Soil and Sense	339
Groszstadt Essen. D. Weis	332
Groszstadtforschung. Elis. Pfeil. (see Akademie, etc.)	340
Guide to Geological Literature. R. M. Pearl	116
Guide to the Berkshire Record Office. Berkshire County Council. F. Hull	193
Gutkind, E. A. : Our World from the Air	337
Hall, S. : Commercial Geography	116
Handbook of Local History : Dorset. R. Douch	193
Hanna, D. O'D. : The Face of Ulster	47
Happy Island. B. Danielsson	200
Hare, F. K. : The Restless Atmosphere	339
Haskins, C. P. : Of Societies and Men	342
Hawkes, J. : A Land	327
Hawkins, G., and C. A. Gibson-Hill : Malaya	198
Heritage of Early Britain. M. P. Charlesworth and others	192
Highlands of Scotland. S. Gordon	197
Hill, G. : A History of Cyprus. Vol. IV. Ottoman Province, The British Colony, 1571-1948	333
Historical Assoc. : English Local History Handlist	193
History of Cyprus. Vol. IV. Ottoman Province, The British Colony, 1571-1948. G. Hill	333
Hollingworth, C. : The Arabs of the West	334
House, J. W. N. Tyne Surv. Committee : Bellingham and Wark. Population Structure and Employment Conditions	196
House, J. W. N. Tyne Surv. Committee : A Comparative Survey	196
House, J. W. N. Tyne Surv. Committee : Migration and Employment Among School Children and Young Adults, 1931-1950	196
How Nigeria is Governed. C. R. Niven	198
Hubbard, B. R. : Alaskan Odyssey	199
Hull, F. Berks. County Council : Guide to the Berkshire Record Office	193
Human Geography. J. Brunhes	51
Humble, B. H. : The Cuillin of Skye	197
Hundred Years of Anthropology. T. K. Penniman	342
Hurst, H. E. : The Nile	334
Hyams, E. : Soil and Civilisation	116
Incorporated Association of Assistant Masters : Teaching of Geography in Secondary Schools	343
Innovation. The Basis of Cultural Change. H. G. Barnett	341
Introduction to Africa. A selective guide to background reading. Library of Congress	197
Introduction to Map Work and Practical Geography. J. Bygott	50
Jennings, J. N. Royal Geogr. Soc. : the Origin of the Broadlands	114
Jessup, R. F., and F. W. : The Cinque Ports	328
Jones, E. (Ed.). Brit. Assoc. for the Adv. of Science : Belfast and its Regional Setting—a scientific survey	196
Kniffen, F. B. and R. J. Russell : Culture Worlds	341
Kolarz, W. : Russia and her Colonies	334
Land. J. Hawkes	327
Land for Tomorrow. L. D. Stamp	339
Ländergrenzen in Südwesten. F. Metz	332
Leister, I. : Rittersitz und Adliges Gut in Holstein und Schleswig	331
Library of Congress : Introduction to Africa. A selective guide to background reading	197
Lincolnshire. J. Bygott	194
Lincolnshire and the Fens. M. W. Barley	45
Little Hill Farm. W. B. Crump	196
Loftus, A. E. : Elton and the East African Coast Slave-Trade	198
London. J. Boussard	328
Look of Maps. A. H. Robinson	50

	PAGE
Lost Woods. E. W. Teale	199
Lyon, T. C.: Air Geography: a global view	201
Lyon, T. L., H. O. Buckman, and N. C. Brady: The Nature and Properties of Soils	201
Malaya. G. Hawkins, and C. A. Gibson-Hill	198
Manley, G.: Climate and the British Scene	191
Manual of Phytogeography. L. Croizat	201
Map-Reading for Schools. M. Wood	344
Maps and Diagrams. F. J. Monkhouse and H. R. Wilkinson	50
Maps and Map-Makers. R. V. Tooley	51
Mare, E. de: Scandinavia	115
Marketing. I. G. Reid	344
Metz, F.: Ländergrenzen in Südwesten	332
Migration and Employment among School Children and Young Adults, 1931-1950. J. W. House. N. Tyne Surv. Committee	196
Min. of Ag. and Fish.: American Agriculture	48
Min. of Housing and Local Govt.: The Surface Water Year Book of Great Britain, 1937-45	327
Monkhouse, F. J., and H. R. Wilkinson: Maps and Diagrams	50
Mottram, R. H.: The Broads	194
Mulgan, A.: From Track to Highway: a short history of New Zealand	336
Nature and Properties of Soils. T. L. Lyon, H. O. Buckman, and N. C. Brady	201
Neuer Geschichts und Kultur Atlas. H. Zeissig	342
New Spain's Century of Depression. W. Borah	335
Nile. H. E. Hurst	334
Niven, C. R.: How Nigeria is Governed	198
North East Lowlands of Scotland. J. R. Allan	197
North Tyne Survey Committee. J. W. House: Bellingham and Wark: Population structure and employment conditions	196
North Tyne Survey Committee. J. W. House: A Comparative Survey	196
North Tyne Survey Committee. J. W. House: Migration and Employment among School Children and Young Adults, 1931-1950	196
Northern Sea Route, Soviet Exploitation of the North East Passage. T. Armstrong	199
Of Societies and Men. C. P. Haskins	342
Ogrizek, D. (Ed.): Scandinavia	115
Origin of the Broads. J. N. Jennings. Royal Geogr. Soc.	114
Ostendorff, E.: Bodenkundliches Kartenwerk Der Gemeinde Bippen	331
Our Undeveloped World. L. D. Stamp	339
Our World from the Air. E. A. Gutkind	337
Outlines of Geography, Life and Customs of Newfoundland-Labrador. Vols. I and II. V. Tanner	335
Oxfordshire. J. Cannan	194
Patmore, D.: A Traveller in Venice	114
Pearl, R. M.: Guide to Geologic Literature	116
Peel, R. F.: Physical Geography	49
Penniman, T. K.: A Hundred Years of Anthropology	342
Peoples of South Africa. Pretoria State Information Office	48
Perera, L. H. H.: Additional Chapters to H. W. Codrington's <i>A Short History of Ceylon</i>	115
Pfeiffer, E.: The Earth's Face	339
Pfeil, Elisabeth: Groszstadtforschung	340
Philby, H. St. John: Arabian Jubilee	334
Physical Geography. R. F. Peel	49
Pounds, N. J. G.: The Ruhr: a study in historical and economic geography	330
Practical and Experimental Geography. W. G. V. Balchin and A. W. Richards	203
Pretoria State Information Office: the Peoples of South Africa	48
Pretoria State Information Office: South Africa's Heritage	48
Price, W.: The Amazing Amazon	49
Randzio, E.: Unterirdischer Städtebau	340
Reid, I. G.: Marketing. Nat. Fed. Young Farmers' Clubs. Booklet No. 26	344
Restless Atmosphere. F. K. Hare	339

Richards, A. W., and W. G. V. Balchin: Practical and Experimental Geography	203
Richards, P. W.: The Tropical Rain Forest	337
Rittersitz und Adliges Gut in Holstein und Schleswig. I. Leister ..	331
Robertson, C. J. (Ed.). Brit. Assoc. for the Adv. of Science: Scientific Survey of South-eastern Scotland	196
Robinson, A. H.: The Look of Maps	50
Rostlund, E.: Freshwater Fish and Fishing in Native North America ..	200
Royal Geogr. Soc. J. N. Jennings: The Origin of the Broadlands ..	144
Royal Institute of International Affairs. J. Camacho: Brazil: an interim assessment	49
Ruhr. A study in historical and economic geography. N. J. G. Pounds ..	330
Russell, R. J. and F. B. Kniffen: Culture Worlds	341
Russia and her Colonies. W. Kolarz	334
Scandinavia. E. de Mare	115
Scandinavia. D. Ogrizek (Ed.)	115
Schlote, W.: British Overseas Trade from 1700 to the 1930's	327
Schlüter, O.: Die Siedlungsräume Mitteleuropas in frühgeschichtlicher Zeit. Part I. Einführung in die Methodik der Altlandschaftsforschung ..	332
Scientific Survey of South-eastern Scotland. British Assoc. for the Adv. of Science. C. J. Robertson (Ed.)	196
Sea Coast. J. A. Steers	192
Shindman, B. Dept. of Mines and Tech. Surv., Canada: Taiwan (Formosa)	199
Siedlungsräume Mitteleuropas in frühgeschichtlicher Zeit. Part I. Einführung in die Methodik der Altlandschaftsforschung. O. Schlüter ..	332
Sinnhuber, K.: Glan bei Salzburg	333
Social Provision in Rural Wiltshire. H. E. Bracey	45
Soil and Civilisation. E. Hyams	116
Soil and Sense. M. Graham	339
Sorre, M.: Fondements de la Géographie Humaine. Tome III, L'Habitat, conclusion générale	338
South Africa's Heritage. Pretoria State Information Office	48
Spöcker, R. G.: Zur Landschaftsentwicklung im Karst des oberen und mittleren Pegnitz-Gebietes	332
Stamp, L. D.: Land for Tomorrow	339
Stamp, L. D.: Our Undeveloped World	339
Steers, J. A.: The Sea Coast	192
Study of an African Swamp. F. Debenham	198
Suffolk. W. Addison	45
Surface Water Year Book of Great Britain, 1937-45. Min. of Housing and Local Govt.	327
Taiwan (Formosa). B. Shindman. Dept. of Mines and Tech. Surv., Canada	199
Tanner, V.: Outlines of the Geography, Life and Customs of Newfoundland Labrador. Vols. I and II	335
Taylor, G.: The Emerald Isle	329
Teaching for International Understanding. U.N.E.S.C.O.	343
Teaching of Geography in Secondary Schools. I.A.A.M.	343
Teale, E. W.: The Lost Woods	199
Tooley, R. V.: Maps and Map-Makers	51
Traveller in Venice. D. Patmore	114
Tropical Rain Forest. P. W. Richards	337
Tropical World. P. Gourou	337
Trowbridge Woollen Industry. Wilts. Arch. and Nat. Hist. Soc. R. P. Beckinsale (Ed.)	195
U.N.E.S.C.O.: Teaching for International Understanding	343
U.N.E.S.C.O.: What is Race?	342
University of California Publications in Geography No. 9. E. Rostlund: Freshwater Fish and Fishing in Native North America	200
Unstead, J. F.: Europe	329
Unstead, J. F.: The British Isles	329
Unterirdischer Städtebau. E. Randzio. (see Akademie, etc.)	340
Use of Geography. F. Debenham	49
Valkenburg, S. Van: Europe	329
Wales, Vols. 1 and 2. M. Frazer	46

	PAGE
Walker, J. : Aspects of Geography Teaching in School	343
Walling, E. : The Australian Roadside	335
Weald, S. W. Wooldridge and F. Goldring	194
Weis, D. : Die Groszstadt Essen	332
What is Race ? U.N.E.S.C.O.	342
Wilkinson, H. R., and F. J. Monkhouse : Maps and Diagrams	50
Wilts. Arch. and Nat. Hist. Soc. : Andrew's and Dury's Map of Wiltshire	195
Wiltshire Arch. and Nat. Hist. Soc. R. P. Beckinsale (Ed.) : The Trowbridge Woollen Industry	195
Wood, M. : Map-Reading for Schools	344
Woodlands of Five Acres and Over. Census of Woodlands, 1947-49. Forestry Commission Census Report No. 1	192
Wooldridge, S. W., and F. Goldring : The Weald	194
World Resources and Industries. E. W. Zimmermann	51
Wright, J. K. Amer. Geogr. Soc. : Geography in the Making	200
Yarrow, I. : Berkshire	329
Zeissig, H. : Neuer Geschichts und Kultur Atlas	342
Zimmermann, E. W. : World Resources and Industries	51
Zoogeography of the Land and Inland Waters. L. F. de Beaufort	202
Zoogeography of the Sea. S. Ekman	202
Zur Landschaftsentwicklung im Karst des oberen und mittleren Pegnitz-Gebietes. R. G. Spöcker	332

REVIEWS OF TEXTBOOKS

	PAGE
Brooks, L. (Ed.) : Fundamental Geography Series. Books 1, 2 and 3	204
Das Arktische Jahr. G. Weiss	345
First Great Inventions. M. Neurath and J. A. Lauwerys	204
Four in Hand, Educ. Ser. Vol. I Australia. H. M. Madeley	346
Four in Hand, Educ. Ser. Vol. II Greece. G. Wise	346
Fundamental Geography Series. Book 1. Many People in Many Lands. D. M. Forsaith. Book 2. Earth in the Making. E. M. Coulthard. Book 3. Vegetation and Man. L. Hadlow. L. Brooks (Ed.)	204
Hauger, O. : Kreuz des Südens	345
How the First Men Lived. M. Neurath and J. A. Lauwerys	204
How the World was Explored. M. Neurath and J. A. Lauwerys	204
Hoygaard, A. : Im Trebeis-Gürtel	345
Im Trebeis-Gürtel. A. Hoygaard	345
Kattwinkel, L. : Lapin Hullu	345
Kleine Länderkunden	345
Erde und Weltall, G. Frebold. Frundfragen der Erdgeschichte, G. Frebold. Suomi Finnland, W. Evers. Die Südöstasiatische Inselwelt, K. Helbig. Die Sowjet Union, W. Leimback. Australien, K. H. Pfeffer. Die Sahara, H. Schiffers. Der Erdteil Asien, A. Schultz. Japan Meerbestimmtes Land, L. Mecking. Kreuz des Südens. O. Hauger	345
Länder und Völker	344
1. Mid Europe. H. Lippold. 2. Europe. E. Boehm. 3. Africa, Asia, and the Pacific Region. K. Heck. 4. The Americas. R. Fox. Lapin Hullu. L. Kattwinkel	345
Madeley, H. M. : Australia, Four in Hand, Educ. Ser. Vol. I	346
Neurath, M., and Lauwerys, J. A. : First Great Inventions	204
Neurath, M., and Lauwerys, J. A. : How the First Men Lived	204
Neurath, M., and Lauwerys, J. A. : How the World was Explored	204
Neurath, M., and Lauwerys, J. A. : Visual History of Mankind Series	204
New World Wide Geographies, 2nd Ser. Africa, Asia and Australia. Europe and the British Isles. J. H. Stemberge	346
Seydlitz, 1951. Erster Teil. Das Deutsche Vaterland, Wir und die Welt. C. Degn, E. Eggert, J. Petersen, E. Sobotha	345
Stemberge, J. H. : New World Wide Geographies, 2nd Ser. Africa, Asia and Australia. Europe and the British Isles	346
Visual History of Mankind Series. M. Neurath and J. A. Lauwerys	204
Weiss, G. : Das Arktische Jahr	345
Wise, G. : Greece, Four in Hand, Educ. Ser. Vol. II	346

GEOGRAPHICAL ASSOCIATION, 1953

President : Dr. O. J. R. HOWARTH, O.B.E.

Past-President : Professor F. DEBENHAM. **Vice-Presidents :** Professor H. J. FLEURE, Professor J. F. UNSTEAD, Mr. T. C. WARRINGTON.

Trustees : LORD RENNELL, Professor Sir J. L. MYRES, Mr. L. BROOKS.

Hon. Treasurer : Sir WILLIAM H. HIMBURY.

Hon. Auditor and Librarian : Mr. T. C. WARRINGTON.

Hon. Secretary : Dr. ALICE GARNETT.

Hon. Editor : Professor D. L. LINTON.

Hon. Annual Conference Organiser : Dr. W. G. V. BALCHIN.

Council : Officers (listed above); Chairmen of Committees (see below); Branch Representatives (see Standing Order 1(1)) and the following elected members : Professors S. H. BEAVER, H. C. DARBY, R. H. KINVIG, Misses M. M. ALFORD, E. M. COULTHARD, Messrs. S. G. COOKE, W. R. A. ELLIS, J. C. LARKINSON, C. H. SAXELBY, W. H. SHEPHERD, J. G. SKINNER, L. S. SUGGATE.

Executive Committee : Sir W. N. HIMBURY, Professor H. J. FLEURE, Professor D. L. LINTON, Dr. A. GARNETT, Dr. W. G. V. BALCHIN, Messrs. L. BROOKS, T. C. WARRINGTON; Dr. E. W. H. BRIAULT; Section Representatives : Dr. G. M. HICKMAN, Messrs. G. H. BURDEN, R. COLE, R. C. HONEYBONE, J. A. MORRIS, A. E. SMAILES, H. H. STARR; Members elected by Council : Professor H. C. DARBY, Miss E. M. COULTHARD, Messrs. S. G. COOKE, W. R. A. ELLIS.

Maps Officer : Mr. N. K. HORROCKS.

Editorial Panel : The Hon. Editor Professor D. L. LINTON, Dr. E. W. H. BRIAULT, Mr. N. PYE, Dr. M. J. WISE, Miss M. OUGHTON.

SECRETARIES OF SECTIONS AND STANDING COMMITTEES :

Primary Schools Section Committee : Mr. A. F. SPRANGE, 12, Rose Avenue, South Woodford, London, E.18.

Public and Preparatory Schools Section Committee : Mr. H. H. F. SIRB, Monkton Combe School, Bath.

Secondary Schools Section Committee : Mr. R. COLE, 31, Barholm Road, Sheffield, 10.

Section for Further Education in Geography : Mr. G. LIGHTON, Walford, Park Avenue, Ashton-on-Ribble, Preston.

Training Colleges Section Committee : Miss M. GOSS, Stockwell College, Bromley, Kent.

Standing Committee for Visual Aids in the Teaching of Geography :

Standing Committee for Urban Spheres of Influence : Mr. A. E. SMAILES, Queen Mary College, University of London, Mile End Road, London, E.1.

HARRAP

Canada: The Golden Hinge

By LESLIE ROBERTS

If anyone wants to know where the Canadian stands in the world today—and what strength he possesses to make his standpoint important—this is the book that gives the vigorous answer, with a wealth of documentation and statistical data. The country and its people are described in all their facets, province by province and town by town, and the book is rounded off with an index and a useful bibliography. "There may be more profound and sensitive books about Canada, but there can be few more readable and exciting."

—*The Times Literary Supplement.*

15s. net

Fundamentals of School Geography

By OLIVE GARNETT, B.A., *Senior Lecturer in Geography at the Froebel Educational Institute Training College for Teachers.*

A standard work for teachers and students in training which was first published in 1934. A new and revised edition was issued in 1949 which incorporates the many developments in educational practice which have taken place since 1934, and also the changes introduced by the Education Act of 1944.

Second Edition, £ 10s. 6d. net.

182 HIGH HOLBORN, LONDON, W.C.1

GEOGRAPHICAL FIELD WORK FLATFORD MILL FIELD CENTRE (Council for the Promotion of Field Studies)

Excellent opportunities are offered for rural and urban field work. College or VIth Form parties with their own instructors, and independent students are welcome at any time from March to October.

GEOGRAPHY COURSES have been arranged for

MARCH 17th to 24th 1954

APRIL 21st to 28th 1954

Please write for details to

THE WARDEN, FLATFORD MILL FIELD CENTRE, EAST BERGHOLT,
NR. COLCHESTER, ESSEX.

PUBLICATIONS OF THE GEOGRAPHICAL ASSOCIATION

The following may be obtained from the Assistant Secretary, Geographical Association, c/o The Park Branch Library, Duke Street, Sheffield, 2.

1. *Local Studies*. Revised and enlarged edition (1949) prepared by members of the Secondary Schools Section Committee. With regional bibliography. Price 3/- post free; if supplied through a bookseller, 3/3.
2. *Geography in the Primary School*. 1953. Prepared by a sub-committee of the Primary Schools and Training Colleges Section Committees. Revised edition. Price 2/- post free; if supplied through a bookseller, 2/3.
3. *Geography in the Secondary School*. With special reference to the *Secondary Modern School*. 1952. Prepared by Dr. E. W. H. Briault and Mr. D. W. Shave for the executive committee. Price 2/- post free; if supplied through a bookseller, 2/3.
4. Set of 6 O.S. Maps (4th edition) of contrasted areas, with National Grid on 2. Size 15 x 12 in. 4/6 for a single set, 4/3 per set if bought in quantity; if supplied through a bookseller 4/9 for a single set, 4/6 per set if bought in quantity: (Cairngorms, South Downs, Mid-Severn Valley, South Wales Valleys; water and contours only of the last two).
5. *Seven Lamps of Geography*. An appreciation of the teaching of Sir Halford J. Mackinder. E. W. Gilbert. Reprinted from *Geography*, vol. XXXVI, part I. 1951. Price 1/6 post free.
6. Class Reference books in Geography for Form VI. 8d. post free.
7. Lantern Slide Catalogue Sheets with Notes (53 sets). Price for the set, 9/-, including postage. Single Catalogue sheets, 7d. Lists of sets of slides free if stamped addressed envelope is sent.
8. Current list of back numbers of *Geographical Teacher* and *Geography* available for purchase, 3d. post free.
9. *Lincoln. A Geographical excursion*. Published by the Lincoln Branch. Price 1/3 post free (limited edition).

Names of Branches and Hon. Secretaries, library regulations, and details of orders for water and contour "pulls" of $\frac{1}{4}$ in., 1 in. and $2\frac{1}{2}$ in. O.S. maps available through the G.A. can be supplied: requests should be accompanied by stamped addressed envelope.

REPRINTS AND REVISIONS

Sets of 4 geological transparencies to accompany the O.S. maps (see above, item 4) are again available, price 2/- per set.

University entrance requirements and scholarships: leaflet revised in 1952 is now available for sale, price 8d. post free.

GEOGRAPHY

THE

JOURNAL

OF THE

GEOGRAPHICAL ASSOCIATION

VOL. XXXIX, 1954

Central Office
c/o The Park Branch Library
Duke Street, Sheffield, 2

